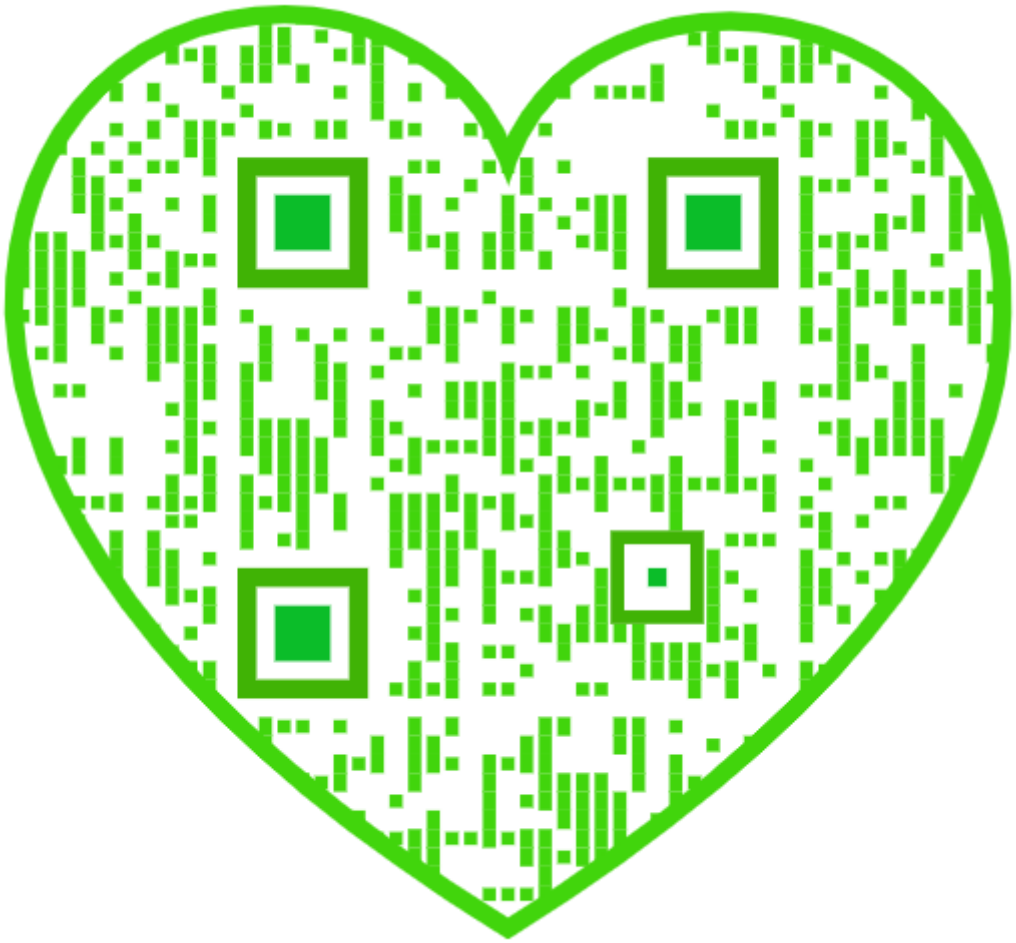

The ARCHITECT AND ENGINEER

OCTOBER
1927

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A. E. Dickinson

By A. E. DICKINSON
President
Indiana Limestone Company

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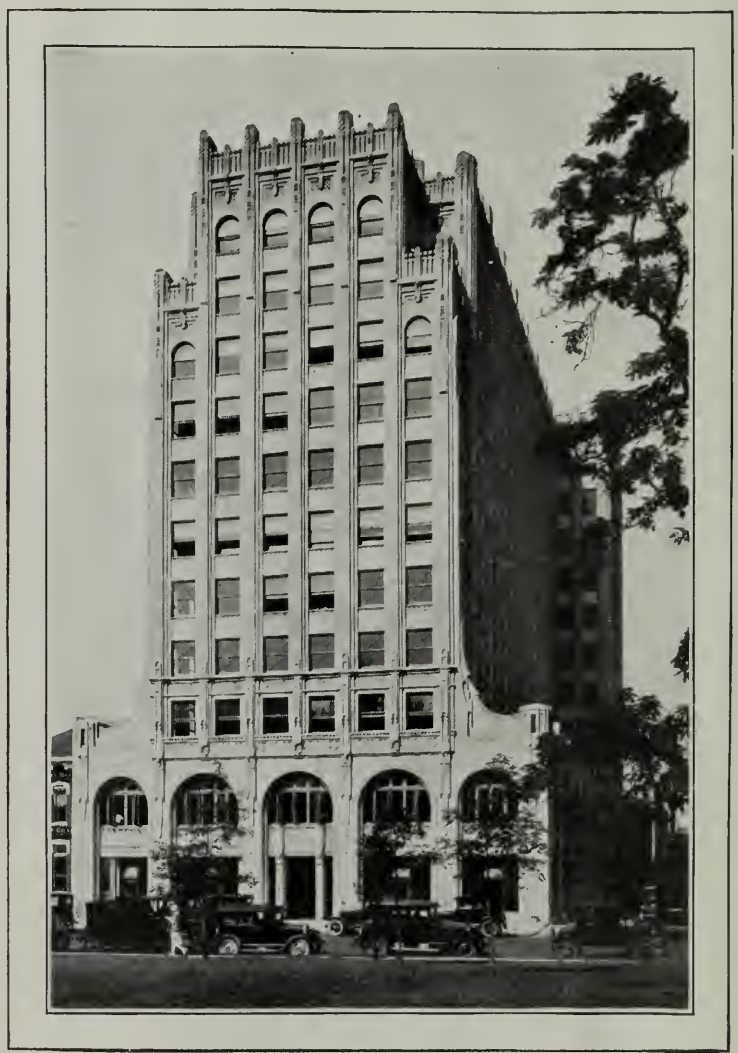

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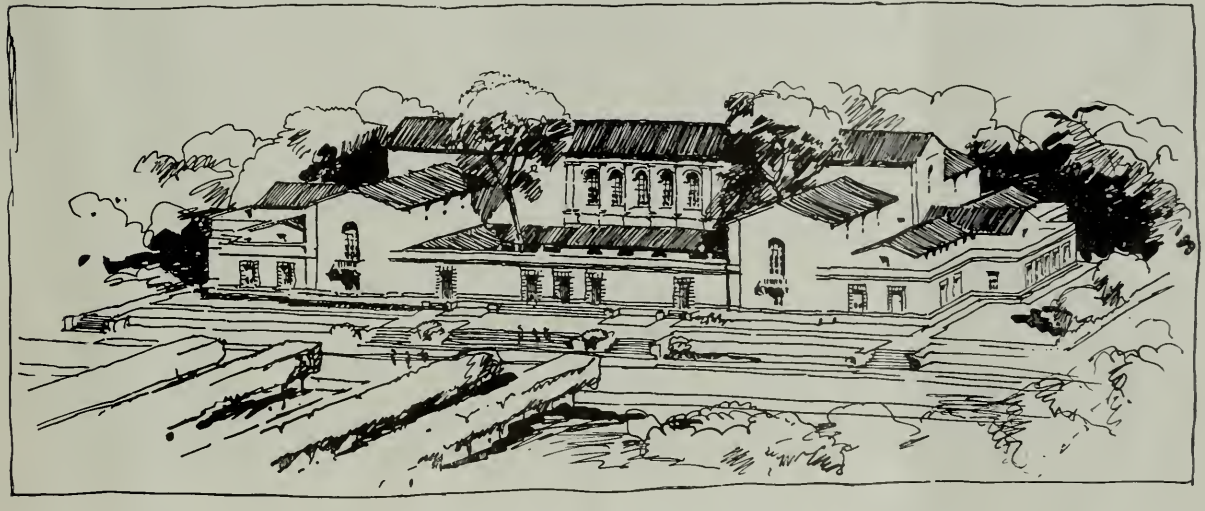
VOL. 91 OCTOBER, 1927 No. 1

The PASADENA PUBLIC LIBRARY

MYRON HUNT and H. C. CHAMBERS *Architects*

By Irving F. Morrow

SOME months ago there appeared in the pages of the Journal of the American Institute of Architects an article from the pen of Mr. Charles Harris Whitaker recalling a delightful bit of lore of the Italian Renaissance. In those days, we were reminded, architecture had not become a feverish round of getting jobs, letting contracts, collecting fees, and getting more jobs. Art was neither an impersonal business nor an optional luxury. It was a necessity; or better, perhaps, one of those interests so woven into the very fabric of life that it was accepted without thought of question or defense. And when those great sculptured Medici tombs of Michael Angelo's were set up in Florence, there appeared sonnets celebrating their loveliness and affixed by the hands of unknown enthusiasts gifted alike spontaneously to enjoy a work of art and to convey that enjoyment in terms themselves artistic. A renewal was urged of this lost or submerged faculty for the whole-hearted enjoyment of architecture; and since pinning poems to a building might seem for these days a quixotic manner of procedure, it was proposed to dedicate a page of the maga-



SKETCH FOR PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

Myron Hunt and H. C. Chambers, Architects

PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA
MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

zine, to be called the Sonnet Board, as an asylum for those tributes which, in the turbulence of the modern out-of-doors, would be doomed to oblivion.

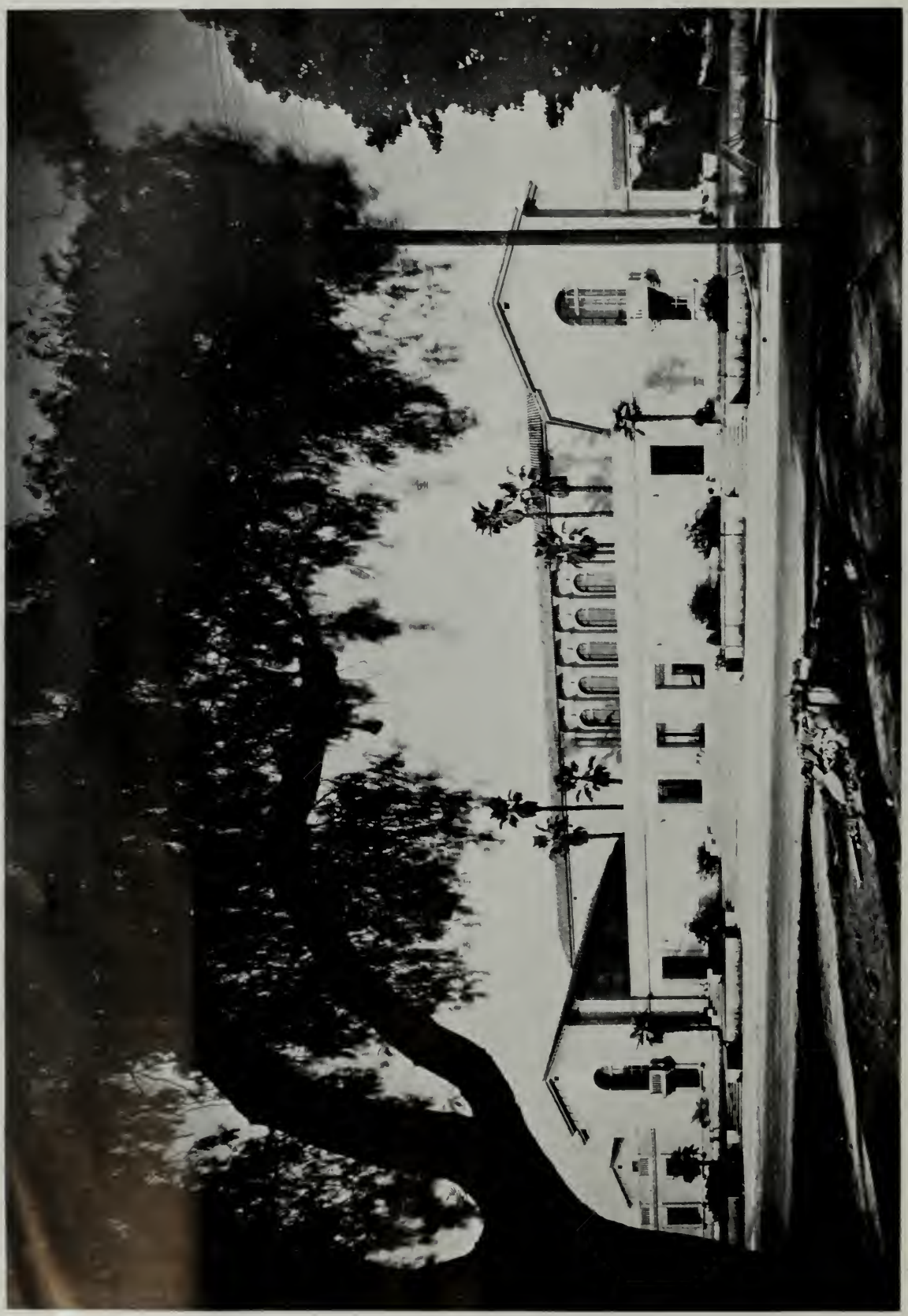
We have become prone to deplore the insufficiency of current architectural design almost as an habitual attitude: yet I believe that today our capacity for creating enjoyable architecture exceeds our public's capacity for enjoying it. How else explain that no sonnet (nor even free verse) has been reported attached to that loveliest of recent buildings, Messrs. Hunt and Chambers' Public Library at Pasadena? I understand this question, of course, more or less figuratively. Sufficient obstacle to a literal revival of the tradition would appear in peculiarities of the national temper. Even assuming that there existed a person enjoying architecture vividly enough to require vent for his enthusiasms, he would follow a different technique. There would be organized the League for the Appreciation of the Pasadena Public Library, which would institute a membership drive, conduct parliamentary meetings, appoint committees, and issue a report to be consigned to some archives or other where it would never come into active competition with building permit and municipal inspection certificates posted at the job.

There are works of art which, however admirable, leave you going your usual way; and there are others which impel you to go out of your way and do something for which you know people would consider you foolish. I could do foolish things over the Pasadena Library—worse than gaping in a street filled with passing automobiles or dallying until I missed a train. I might attempt single-handed a revival of the gracious Florentine custom in the face of my full recognition that it is ludicrously obsolete in spirit, were it not for a couple of deterrent circumstances. I am not poetically equipped for the task; nor am I in a position to journey to Pasadena to affix such tribute as I might compose. Right here one encounters fresh evidence that with us art is not a vital interest of life. On the occasion of a prize fight or an election or the visit of notables or the recurrence of any one of a variety of carefully nurtured anniversaries the telegraph companies disseminate printed slips detailing all possible appropriate sentiments elegantly composed and numbered for identification. Were architecture a public concern the completion of a building comparable to this would be attended by similar literary obstetrics (and incentives to make the public "telegram-conscious"). I would have only to take down my telephone, indicating to the telegraph clerk number 7 and my name, and Messrs. Hunt and Chambers would be the prompt recipients of CALIFORNIA AND THE NATION CONGRATULATE YOU ON WORK WELL ACCOMPLISHED. Literary worries would dissolve in this efficient vicarious satisfaction of the urge to expression.

But alas, architecture is not a public concern (one wonders at times if it is even the concern of architects). So, when a building as wholly lovely as the Pasadena Library fills me with that peculiar enjoyment which craves communication, and I can neither write sonnets nor pin them to the building nor find telegrams straining to fly at the drop of the coin, I resort to the one relief the modern situation seems to afford and write an article for an architectural magazine.

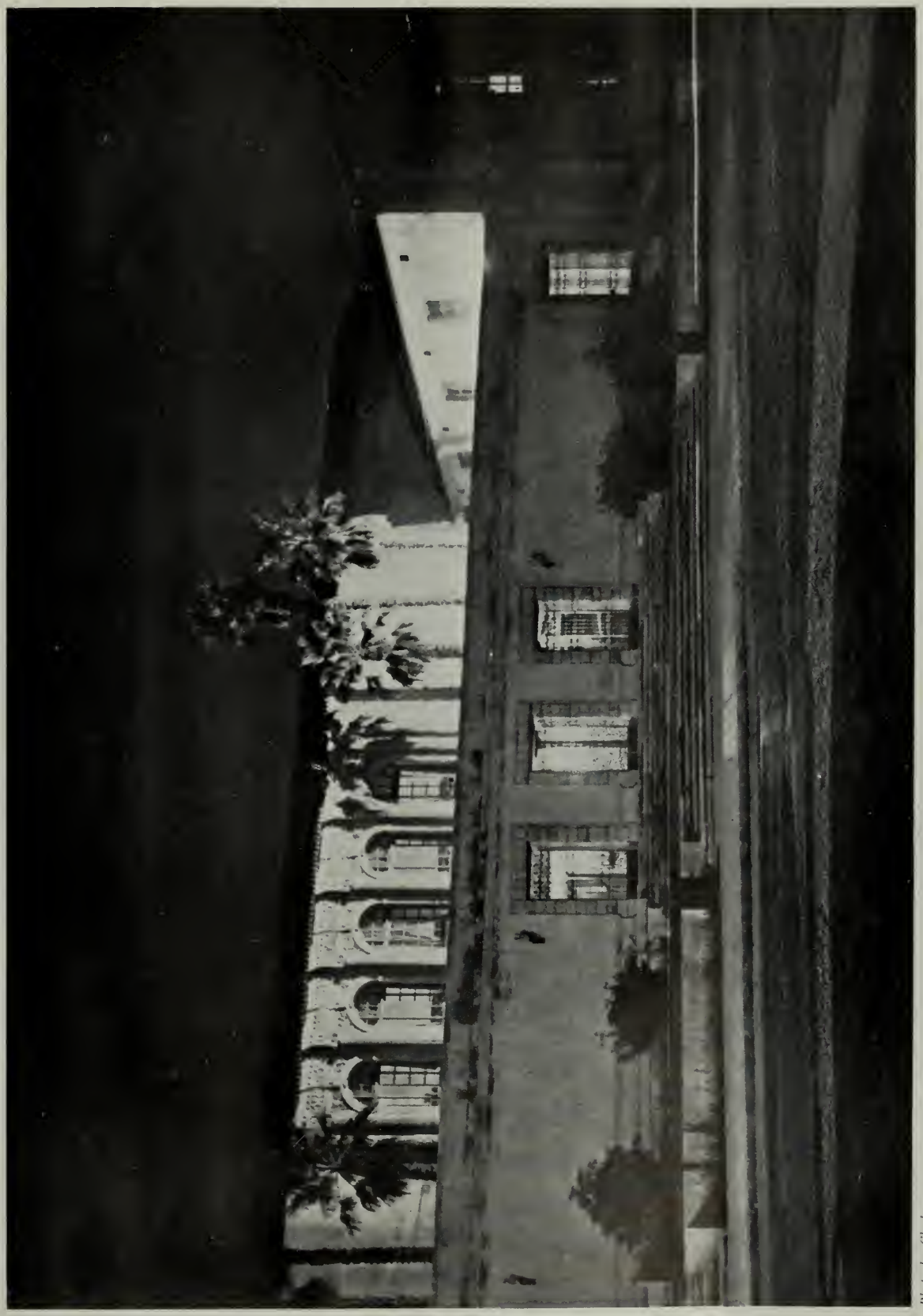
Just what reservations of a critical nature might arise after a visit to the site or with adequate data in hand I can not say. Comparing the show plans and the general photographs it seems that some of those leisurely clerestory setbacks have been achieved by means not wholly logical. This implies nothing structurally questionable; indeed, it is a commonplace, and perhaps one of our greatest dangers, that in these days we are able to construct anything. At the same time one is hardly prepared to find a clerestory practically a story in height, recessed on three sides, and carried like a gigantic skylight on the first story roof—which appears in several instances to have been done here. I make this as a suggestion, without pressing it, because, as I say, I lack sufficient information for a dogmatic pronouncement.

Not so in what concerns the building's visual aspects, where, it seems to me, we enjoy an approximation to unblemished loveliness that we are seldom privileged to attain. It seems hardly possible, in the limits of a general appreciation, to become involved in details of technique, although points of no little interest to the architect are not far to seek; witness the delicate vertical and horizontal manipulation of exterior walls, or the ingenious device by which the stacks are entirely opened up to the delivery room without compromising the unity of the wall. That highest art which conceals art transposes nobility of mass, harmony of line, felicity of plane relationship, eloquent



PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS



NIGHT PICTURE, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

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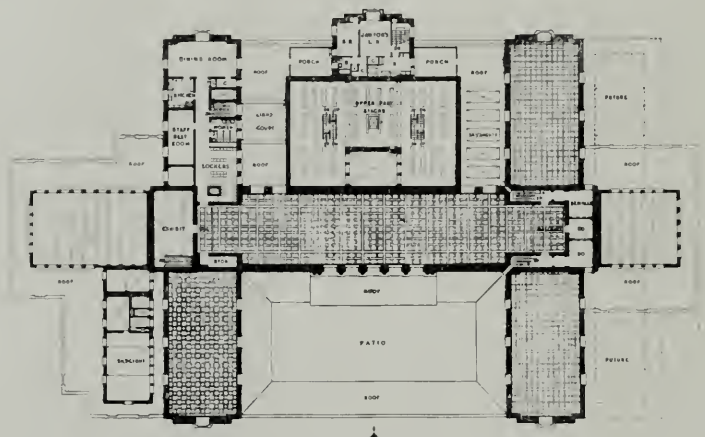
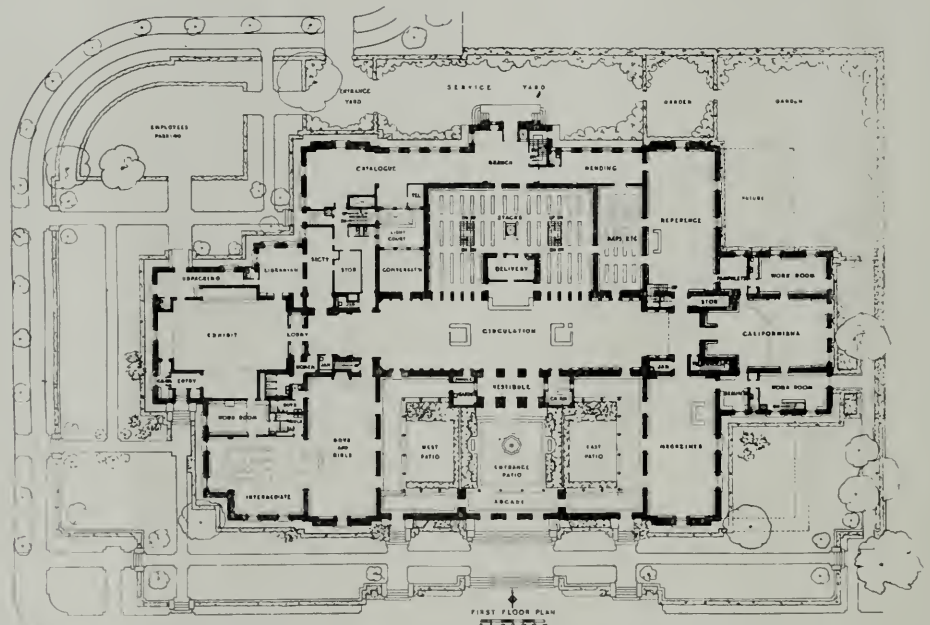

SECOND FLOOR PLAN
SCALE IN FEET
THE PASADENA PUBLIC LIBRARY
PASADENA CALIFORNIA
MYRON HUNT & H.C. CHAMBERS - ARCHITECTS - LOS ANGELES


FIRST FLOOR PLAN
SCALE IN FEET
THE PASADENA PUBLIC LIBRARY
PASADENA CALIFORNIA
MYRON HUNT & H.C. CHAMBERS - ARCHITECTS - LOS ANGELES

PLANS, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

simplicity, discreet use of ornament, aptness of accessories and surroundings, matters generally considered technical, form the realm of technique into that of pure enjoyment. As to how one contrives to evoke out of tolerably complex plan requirements a composition of such breadth and clarity; or how one contrives to fuse familiar, catalogued elements and procedures into a whole of fresh and unique character; or how one contrives to render abstract form as expressive of reflection and contemplation as the words of poetry or the sound of music—all this is of a piece with the question as to why they have to be born and can't be made.

I have at times thought (and said) hard things against competitions; and now I recall that this building was the issue of a competition. It just goes to emphasize the difficulty of being consistent in a world that will not run to pattern. At any rate, I stoutly maintain that it was a most unusual competition.

MORE COLOR IN BUILDINGS

COLOR tests were recently made in London by Dr. J. Dodson Hessey, aimed to determine the effect of various colors and lights upon the human system, and having in mind their value as curative agents in certain physical and mental ailments.

N. E. Stephens, secretary of the North American Society of Arts, New York, believes that Dr. Hessey's experiments may lead to a broad recognition of the possibility of utilizing colors for the preservation of health and stimulation or soothing of human activity. Mr. Stephens touches upon the matter in the following suggestive way:

Just as sanitation is today considered as important as medicine, we may soon find that the proper use of color in our city-building, will decrease the number of cases requiring the remedial use of color and other curatives.

Modern building materials, such as terra cotta, afford wide range to the architect, in the selection of colors. Before long, he will have accurate information at his command, to show how each color affects not only the psychology, but the physical system of the person who views it, or who comes into contact with light reflected from its surface.

Thus far, Dr. Hessey's demonstrations indicate that blue, green and orange have the most powerful influences. Blue is used to reduce inflammatory conditions. Green soothes the nerves, and lowers the blood pressure. Orange and red stimulate the nervous systems. Yellow is a mental stimulant.

Some of these colors, it is claimed, affect the individual not only through the vision, but by direct contact with the body.

Naturally the concentration of light for curative purposes gives a more powerful and a speedier effect than the reflection from a terra cotta building. But the importance of the latter is not to be ignored. A single whiff of fresh air is not as potent as many drugs, yet fresh air plays a vital part in the maintenance of health.

It is well to realize that the human race was evolved in certain surroundings, containing certain color combinations. Forests, lakes, skies, sunsets, fields, all have their distinctive colorings. These are supplanted or hidden from view by artificial structures, in the city.

We have learned that where fresh air is shut off it must be supplied by mechanical ventilation if health is to be preserved. It is not unlikely that we shall also learn that health requires the presence of certain colors.

It is also possible that the architect will go even further and will use colors to serve the special interests of commerce. Activity may be stimulated, or nervousness and unrest soothed, by the wise use of colors.—Buildings and Building Management.

ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

ARCHED ENTRANCE, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

The ROYAL HAWAIIAN HOTEL

HONOLULU ~ T. H.

FRONTING the famous Waikiki Beach and nestled beneath towering coconut palms with a background of tropical gardens, the new Royal Hawaiian Hotel, Honolulu, has already become a lure to tourists. The Hawaiians are quite familiar with the spot upon which the hotel rises, for it was here a beautiful grove of coconut palms was planted many years ago by an ancient king of Oahu, the first tree being planted in honor of a phantom rooster supposed to be dwelling in the Koolau mountains five or six miles away which had mysteriously appeared before the king and scratched in the dirt at his feet.

Later the grove became the summer home of Queen Kaahumanu, wife of Kamehameha First, whose house of coral stone was erected among the coconut palms. This was the place where many luaus or feasts were held by the royal families when entertaining distinguished visitors in the old days. One of the most famous was that given for the Duke of Edinburgh in 1869. It is no wonder that this spot has become known as "The Playground of Hawaiian Royalty," and it seems most fitting that this beautiful new structure, which is so like a castle, should have been reared upon this particular site.

The new hotel is seven stories in height. There are four hundred large double bedrooms all with baths and showers, many of them forming parts of suites that include beautifully furnished salons and private lanais (or loggias), affording a magnificent view of the sparkling blue waters of Waikiki with Diamond Head in the background. Other bedrooms and suites face the beautiful mountains and valleys of Honolulu, where one may catch a glimpse of rainbows through the coconut palms, and the misty blues and violets of Oahu's mountain ranges.

Unusually restful to the eyes is the delicate sea-green coloring used on the bedroom walls. These are of sanded plaster and the wood trim employed throughout the bedrooms is in the same tone. Apricot-colored silk shades are used on the hanging and table lamps in these rooms, while the draperies are of striped mohair in varying tones of green, apricot, yellow and coral.

The furniture, which is most attractive, is of a Colonialized design and consists of a bureau with side lights conveniently inserted in the mirror frame, a chiffonier, comfortably upholstered wicker armchairs, a secretary or writing-table as the case may be, gate-leg table and specially made beds.

These pieces of furniture, with the exception of the beds, are enameled in jade with touches of coral used in the borders and sprays of flowers decorating them. The beds are coral colored with jade green knobs. A coral-enameled bedside table is placed in each room, as well as a trunk stand and small chairs of maple, which add a note of contrast to the general jade and coral coloring of the other pieces.

There are several quaint imported pieces used in the salons. There is a Spanish chair, a gaily enameled little affair of red and yellow with hand-painted flowers, and a nest of tables in red, green and yellow that are also from Spain. Capri vases and jardinieres are also used throughout the salons, and on the lanais one finds grass rugs and graceful pieces of wicker, as well as a potted palm or two in green stone jars which are extremely appropriate for an "out-of-doors" sitting room.

Parchment-shaded reading lamps with wrought iron stands are placed conveniently near the deep armchairs and chaise-longues found here. Even the elevator corridors have been made beautiful to match the rest of the appointments. Handsome imported settees have been placed opposite the elevators on each floor and most attractive Japanese panels, in a bird and flower design, have been placed upon the walls.

Adjoining the first bedroom floor and directly above the coconut grove lanai is a charming sun terrace. Concealed lights have been placed at the edge of the terrace and at night they play upon the fountain and coconut grove with a most romantic effect.

The public rooms in the Royal Hawaiian are unusually beautiful and have the touch of refinement and harmony, combined with luxuriousness and colorfulness, that bespeak the dis-

PORTE-COCHERE, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

PORTICO OFF LIVING ROOM, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

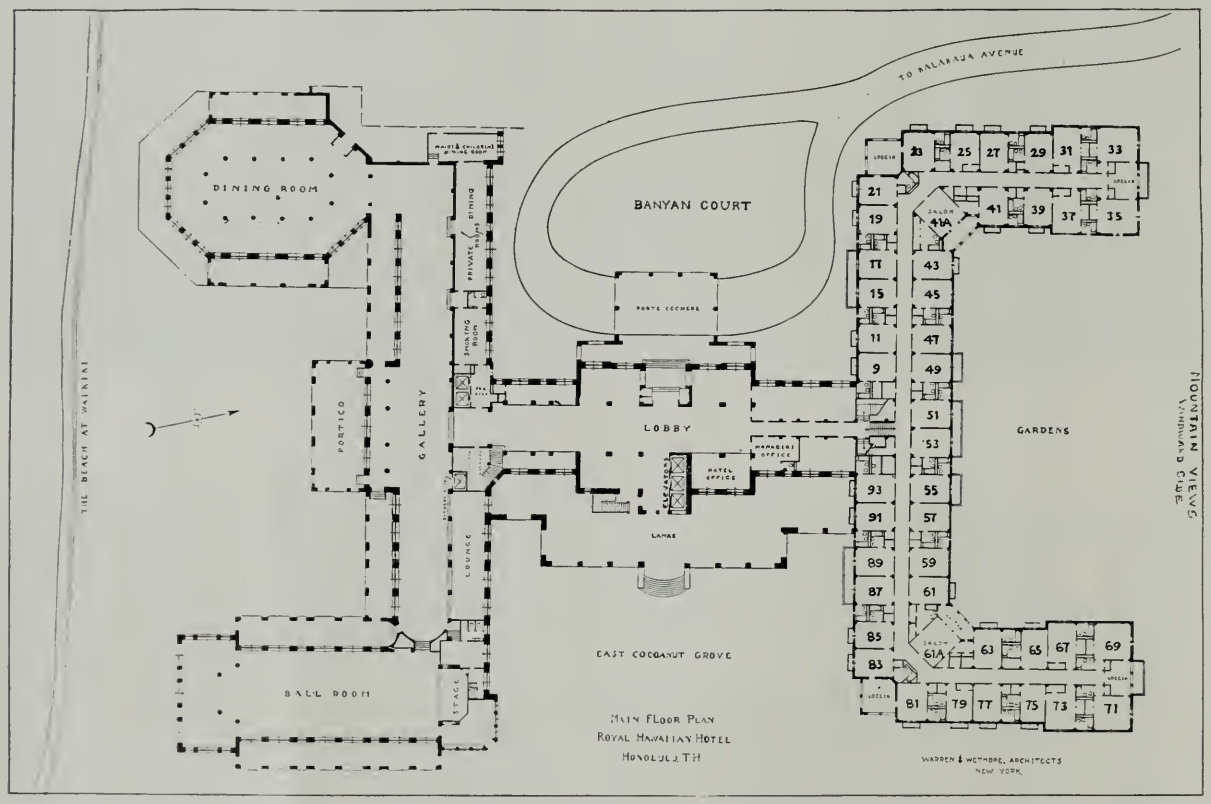
MAIN LOBBY, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

MAIN LOBBY, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

criminating taste of those who designed and built the hotel.

One finds on the tables in the lounge and in the lobby, clusters of fragrant ginger, hibiscus in rainbow tints, flaming bougainvillea, island roses and many other fragrant and luxuriant flowers and plants. Hawaiian palms and ferns are placed in little nooks and corners, adding the charm and beauty of the island countryside to the beauty of the indoor furnishings.

Another woodland touch is added by the brilliant macaws on their high wrought-iron perches above the windows in the lounge, the mountain lories, and the canaries which sing so sweetly from their decorative cages in the lobby and the lounge.



MAIN FLOOR PLAN, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

The ball room, the inspiration for which was derived from the work of the early century artists, is exceptionally pleasing. Once notices a strong Egyptian influence in the decorations, although there are traces of Byzantine art as well. The ideas for the ornamentation were not derived from the paintings alone but from woven and carved pieces left by early artists.

Egyptian figures in rhythmical procession, boat scenes on the Nile River, antique vases filled with fruit and flowers, all in rich colors, softened somehow to suggest age, have been placed on the beams and ceilings. There are cherubs suggestive of early Italian art and at one end of the room there is a large antique mirror of dull gold with flowers ornamenting the corners. Slender beams running the length of the room are decorated in delicate pink and blue, the plain surfaces of the ceilings and walls are done in ivory-colored, wavy plaster finish. Although the coloring in the decorations is very rich, the effect of age has been produced by a certain softening and subduing process applied over the brilliant primary colors. French windows which form three sides of the room may be thrown open to suit the weather.

At one end of the ball room a little theater has been constructed and a company of players under Florence MacAfee give performances three nights a week as well as matinees on Wednesday and Saturday.

Outside of the ball room, on two sides, extend lanais (or porches) filled with little tables and chairs where one may enjoy light refreshments between dances.

The gallery (or lounge) is 230 feet long and

40 feet wide, opening through great arched windows onto a view of the ocean. Czecho-Slovakian rugs in striking patterns on a black background have been placed in the lounge. They are from the largest looms in the world and range in size from 18 by 24 feet to 19 by 50 feet.

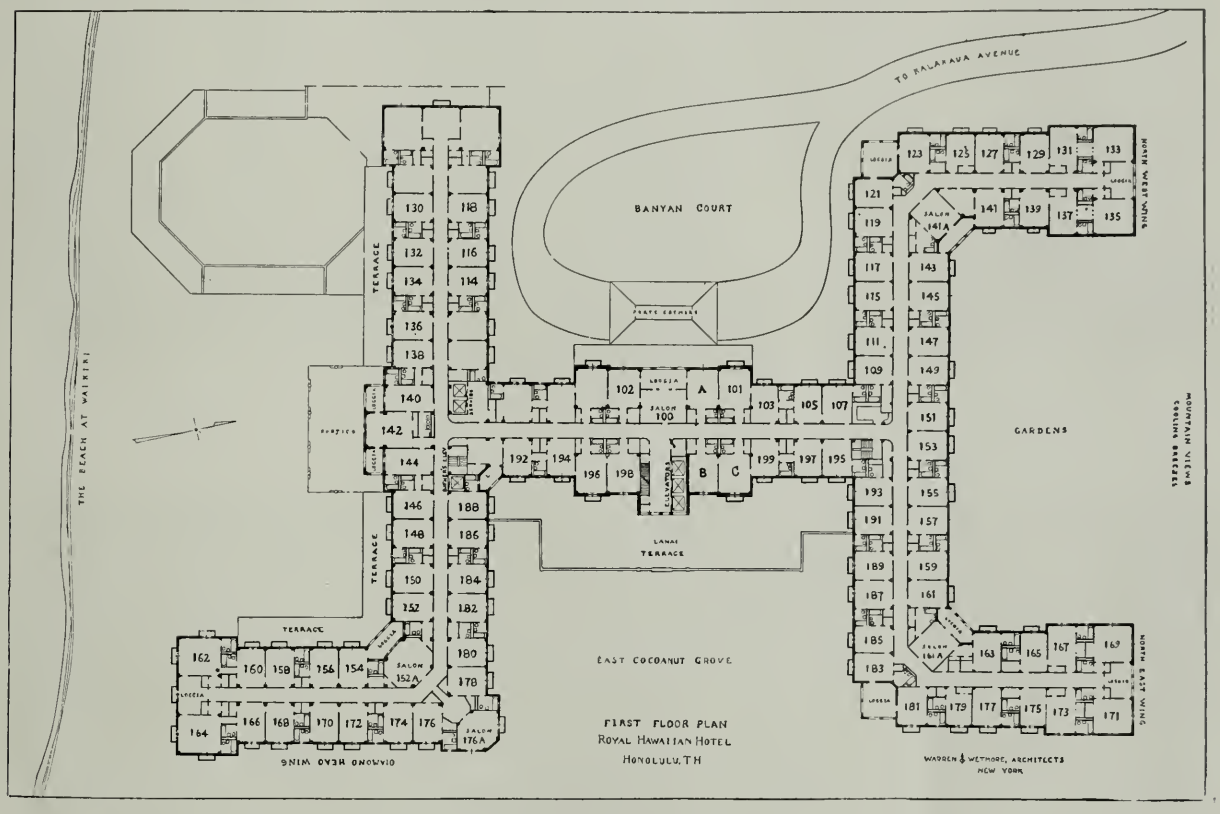
At the other end of the lounge, opposite the ball room, is the main dining room which is typically Persian in decoration. The walls are made of tiles in a jade green shade while at intervals hand decorations have been placed on the wall panels. A blue dome set with stars comprises the ceiling. The signs of Zodiac, Taurus, Gemini and Pisces form part of the decoration, and handsome doorways, richly carved and ornamented in gilt with dragons and other Persian symbols, greatly enhance the beauty of this room.

Like the ball room, the long French windows of the dining room may be left open to insure a delightful coolness. The lanais which surround the dining room may be used as dining places for those who care to sit out-of-doors.

There are private dining rooms with walls tinted in old ivory decorated with plaques upon which Gentiluomo, famous New York decorator, has painted birds with trailing plumage. These rooms also contain French casement windows from which one may look out upon a view of the banyan court which fronts the entrance to the hotel.

The men's smoking room adjoins the lounge and it is furnished and equipped as a card and games room as well. Several old pieces of Colonial furniture have been placed in this room, which also looks out on the banyan court through French windows. Colonial type Oriental rugs are used in front of the davenports in addition to the plain green Newport Wiltons. Marine plaques, showing the Santa Maria, Mayflower, Half-Moon and other famous ships have been used to decorate the walls.

The architects were Messrs. Warren and Wetmore of New York. Walter Gifford, an Island horticulturist, planned the gardens. The hotel and furnishings represent an investment of $4,000,000.



TYPICAL GUEST ROOM PLAN, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

EDITOR'S NOTE—We are indebted to Keeler's Hotel Weekly for much of the information contained in this article and to Manager Arthur Benaglia of the hotel for the splendid illustrations and plans.

MAIN DINING ROOM, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

BALLROOM, ROYAL HAWAIIAN HOTEL, HONOLULU, T. H.
Warren and Wetmore, Architects

The REGIONAL PLANNING ORGANIZATION of the RUHR adapted to the BAY REGION

By Stephen Child ~ Landscape Architect

(Concluded from September)

"A FEW details of the organization of this Federation of the Boroughs of San Francisco Bay may interest you," continued my Mentor. "We got many suggestions from a federation that was set up in the Ruhr Valley a few years ago." Here I began to prick up my ears even more attentively than ever, for it had been my good fortune to journey by auto through this remarkable industrial district with a group of Belgian and English town-planners during the summers of 1920 and 1921 on work I was then doing for an international organization with headquarters in Brussels. And, I had been very much impressed with the comprehensive scheme they were then inaugurating. On explaining this, my Mentor continued, "you will surely be interested then to know that here as in the Ruhr there is first of all an assembly composed of picked men of the highest character. Each Borough is entitled to one member for every 20,000 of its population. This gives even the smallest of our Boroughs at least one representative, and does not give even the largest a preponderant vote. Members of the Federation Assembly are elected in the same way and at the same time as the Borough Counselors. Their term of office is four years—one-half of the Assembly being elected every two years. The Boroughmaster is not elected as such by the people, but is chosen by the Assembly from its own membership, and serves four years.

"Any decision of the Assembly must be passed by a majority of three-fourths of the votes cast, and be valid only if more than half of the Assemblymen be present and five-sixths of these vote. The Assembly has authority from the State to carry out projects affecting the region as a whole, or more than one Borough. It levies the necessary taxes for such projects, issues bonds and so on in somewhat the same way our counties used to do.

"The Boroughmaster chosen in this way is, of course, by no means always from one of the larger Boroughs, in fact the first Boroughmaster of the Federation was from the Borough of Sausalito. The Boroughmaster presides at all meetings of the Assembly and is ex-officio member of the several committees appointed to administer the various problems that come up for settlement; problems you will remember, all of which are extra-Borough problems, and have been passed up as such to the Assembly. The duties of some of the more important committees I will speak of later."

"All this is very interesting," I said, "but pray tell me a little more about how it all came about!" "Well," continued my Mentor with his quizzical smile, "I think you will yourself remember that about the time you seem to have been taken with this attack of sleeping-sickness from which you have apparently just awakened, there was some talk about a Regional Plan for the Bay District." "Indeed, I do remember that well, for I was much interested—was in fact a member of the City Planning Section of the Commonwealth Club, that started that movement. What became of it?" "Well, early in their effort, in fact as a result of the influence of the City Planning Section of the Commonwealth Club, there was formed a Regional Plan Association, which was at first supported by private subscription. This association did a power of good—it sold regional planning to the Bay District. The people behind this Regional Plan Association were broadminded, far-sighted men, who saw clearly the need for this sort of thing. The 'man in the street' of that day had become somewhat familiar with city planning—Borough planning. He had to be 'shown' that Regional planning was greater than either. That it meant looking ahead, planning for the future, for the more out-lying districts, so as to prevent mistakes and thereby save large sums of money.

The leaders of this Regional Plan Association saw clearly that little could be accomplished until our unfortunate family jealousies and bickerings were superseded by a greater degree

of co-operation, particularly as to the larger matters affecting the Bay Region as a whole—that nothing really great could be accomplished in this great San Francisco Bay District until there was unity of spirit.

"This Regional Plan Association raised enough money to finance a Regional Planning survey—a comprehensive study of the civic conditions and needs of this great Bay District, and they convinced the public that to get results it was absolutely necessary to look beyond arbitrary political lines and plan for projects that could not be controlled by local, community governmental machinery—but plan for these larger projects in such a way they would harmonize with local needs.

"The association, with the aid of experts, prepared a Preliminary Regional Plan that was of great service, opening the eyes of many people on both sides of the bay to the necessity of Regional Planning. It was when it came to undertaking to put this plan into effect, however, that it was found necessary to establish this Federation of the Boroughs of San Francisco Bay that I have been telling you about," said my Mentor.

"All this is indeed interesting," I said, "but pray tell me what this Federation has accomplished. "It has accomplished much. It was a success from the start. I will tell you some of its accomplishments. You will perhaps recall there was a considerable 'to-do' about water-supply for drinking purposes, for power and for irrigation, for different parts of this Bay Region." "Yes, I remember something about all this," I replied. "Well our people, when they realized that the prophecy of the aforementioned Armenian visitor was very likely to become a fact, and that 30 or 40 million people are going to need a good bit of water, said 'Here, surely, is a great and complicated problem, one that cannot be solved by any one Borough, and therefore pre-eminently a problem for the Federation to solve.' And they **have** solved it. The Federation appointed a Water Committee, and this committee selected the ablest engineering talent in the country. They laid it down as a principle that every single valley that could hold water should be made to do so. Unfortunately it was found that in a few of our valleys no suitable site could be found for a dam to impound the water. So some of our rainfall does get away to the sea, but comparatively little. Our engineers have so thoroughly solved this problem that about 80% of the total rainfall is impounded and held for use in several ways—for power, for irrigation, and of course for domestic purposes. We have now no fear from a series of dry years, and the power for our tremendous industry is ample.

"Then, when you get your wits together a little more," continued my Mentor, with another of his quizzical smiles at my amazement, "you will perhaps remember the condition of the water front of our great bay. Here was, in many respects the greatest harbor on earth. And yet, smaller cities handled a greater amount of tonnage—partly because of this silly, local municipal jealousy that could not see that anything that really helped one, helped all; that the problem was to study this whole bay shore, determine what purpose each and every foot of it was best suited for, and then develop it in accordance with the facts—in a word a Bay Shore Zoning plan. This again was clearly a Federation job—a job that could not be solved by any one Borough. And a board, administered by the Federation Assembly, with engineers and consultants have solved it—in fact this one function fully justifies the Federation's existence. The example of London was studied. There, you will remember, for years—hundreds of years—there had been bickering and jealousy, but finally came the London Port Authority and its great work. Hamburg and New York's examples helped us, and now our scheme is working smoothly and well.

"Another very important matter that the Federation, through its Regional Planning Committee has solved is the problem of a major street plan for the Bay Region. Here, too, was something no one Borough could solve—it was a problem that had to be looked at from the point of view of the Region as a whole. Of course, there had to be co-operation with the Engineering and Street Departments of the various Boroughs to harmonize all interests, both local and regional, and now this has been accomplished. And we have a splendidly effective system of main highways, built or building in accordance with a well considered scheme of our regional planners."

By this time I was really getting my eyes thoroughly well opened and my wits clear, and I said to my Mentor, "Sir, it comes to me now, that about the time I went into this somnolence from which I am now awakening, there was much discussion, particularly on the east side of the bay about railroad facilities. As I remember it, each of the railroads having the monopoly

in certain districts and each trying to overcome this, there had developed a needless complication and duplication of trackage, together with inefficient, expensive service, particularly from one district to another." "Oh, yes," said my Mentor, "that was true, and as you have mentioned, the problem affected several communities so it too was very properly one for the Federation to consider, and it has now done so. Its Committee on Terminal Facilities in consultation with transportation experts has now worked out a very comprehensive and very satisfactory scheme. An East Bay Terminal Holding Company has been organized, modeled upon one in St. Louis, where conditions were similar and the trackage of the various competing railroads have now been consolidated under agreements as to their joint use by all. This permits in some cases the use of large areas of land for other purposes, and assures the best interests of all concerned, railroads, manufacturers, shippers and the public. Any railroad desiring to reach California's principal water front now finds the way clear. A comprehensive transportation service is now rendered with great savings of time and money. The water front, instead of being monopolized by one single, fighting road, is opened up by a belt-line. And this gives industrial railroad service without interference with main line business. All railroads enter the Bay Cities, as in England, in open depressed areas. Grade crossings have been eliminated and the uncongested right-of-way gives ideal communication between the city proper and all the industries fronting the bay.

"Another great problem," continued my Mentor, "was bridges. The people of the bay region began to get very restless at the delays and dangers of ferry transportation due to the fogs and so on. Therefore the bridge question was taken up and solved, for this again was a problem far too big and too comprehensive for any one community. You will find, how well it has been solved."

"Then there was the great question of Regional Recreation, recreation that could not well be provided by local communities, as for example, camping, hiking, hunting and quite particularly long automobile rides under wholly pleasurable conditions. Study of this problem soon showed the need of a Metropolitan Park Commission for the bay region, and through the influence of the Federation such a commission was appointed. This commission has now searched the entire bay district for park reserves, especially suited for such purposes — lovely mountain canyons, great water reserve areas, with their storage reservoirs and enclosing hills. Some of these tracts were donated, some like the water reserves were turned over to the Metropolitan Park Commission by mutually satisfactory agreements. Then all these lovely units were integrated, connected together into a well rounded, complete system by a series of pleasure-ways which have come to be called the Paseo Californian and all is now accomplished. It begins at the southerly end of the esplanade below Golden Gate Park and goes down the Peninsula, passing through or by the side of each of the great park reserve units. It crosses Santa Clara Valley below San Jose and comes up the other skyline all the way to Carquinez Point bridge. And thence it goes on up into Solano and Napa counties, passing through or by their lovely metropolitan park reserves and it ends at Mt. Tamalpais. Along it are now, not only the great park reserves, but an Arboretum of international fame and a game and bird refuge. **It is admitted by the world to be the finest drive on earth!"**

"Beautiful!" I say. "But why did you select Yerba Buena island for the headquarters of your Federation?" I asked. "Ah," said my Mentor, "Thereby hangs a tale"—and he smiled significantly. "You may well imagine that when this Federation idea really took hold, when it had been 'sold' to the bay region, there was much pulling of wires to locate its headquarters. San Francisco thought surely she should have it, and a Federation Assembly building to round out its monumental Civic Center. Of course Oakland wanted it, and even Sausalito claimed it and would have put its headquarters on top of Mt. Tamalpais. But the people said 'No.' Not in San Francisco, not in Oakland, not in Tamalpais. This is a Federation of the Boroughs of the Bay. Let us establish its headquarters in the middle of the bay, on Yerba Buena island.

"Some difficulties had to be overcome before this could be done, among them Federal government jurisdiction, but these have now been met. The question of accessibility is not today important for there are interurban tubes from Oakland to Yerba Buena and beyond.

"But many of us, you notice, now fly about in one way or another in aeroplanes or 'blimps'." And sure enough there were hundreds of them in the air. Many were rising and land-

ing on the great level area which had been reclaimed from the bay just north of the island.

And directly across the channel to the east, I could see a beautiful Waterfront park, stretching away as far as the eye could reach toward Richmond with trees and shrubbery masses, broken here and there by openings into an inner harbor dredged from East Bay mud flats. Here, with every facility, the ships of the world were landing their raw materials to supply great factories and warehouses, re-enforcing and supplementing those of San Francisco. All this not ten minutes away from the banking center of the world.

"So," continued my Mentor, "we built this beautiful temple for our Federation Assembly Hall here on Yerba Buena island. It does not have to be very large, for the Assembly has but about a hundred and fifty members. The smaller, subordinate buildings you notice about and below the summit-structure are headquarters of the various important divisions: Water Supply, Bay Shore Zoning, Regional Planning, Bridges, and so on. There are enclosed escalators for the more corpulent members of the Assembly.

"It was our purpose," said my Mentor, "to express in all this an ideal of unity, and this we think we have done. You will note that the temple-like building, the headquarters of the Assembly has two main facades, one facing the east and the other west. In the tympanum of each of these there is an appropriate group of sculpture and over the entrance door this inscription:

"Dedicated to Unity of Purpose for the San Francisco Bay Region."

I leave it to you all. Was it not something more substantial than a dream that I had? It is rather a vision for us to bring to earth, establish upon a firm foundation, and develop so that it may achieve its aim, **Unity of Purpose for the San Francisco Bay Region.**

PROPERTY DAMAGE BY AIRCRAFT

The growing popularity of air navigation and also the increasing list of casualties arising from the practice of air transport are creating interest in the question of insurance against damage by aircraft.

The present status of the property owner in this regard is stated in an interesting way by W. E. Schram, of the editorial staff of the "Weekly Underwriter," New York:

Almost every property owner carries fire insurance, but his fire policy may not protect him against damage done by aircraft.

If a property owner has fire insurance only, and an airplane falls on his house destroying or damaging it, but not causing any fire to ensue, the property owner has no recovery under the fire policy.

If the property owner has fire insurance only, and an airplane destroys or damages his house, and fire ensues, he can recover under the fire policy only that part of the damage attributable directly to the fire, unless the insurance company should choose to pay more.

If the property owner has a fire policy and also a policy protecting him against damage done by a fallen airplane, he can recover all the loss caused by both fire and breakage.

If the operator of an airplane is a person financially responsible and operating his own plane, a property owner suffering loss has a good chance of recovery in an action at law for damage not covered by his fire policy.

If the operator of the airplane is not responsible financially, that is, if he has no money nor property, but was operating a plane for and under the orders of a concern responsible financially, the property owner could probably recover his loss in court from the employer.

If the operator of the airplane is irresponsible financially and was not operating the plane for an employer, but merely on his own account without permission nor by instruction of an employer, recovery for loss would likely be impossible.

The position of a property owner who has no insurance against damage by aircraft is the same as one whose property is wrecked by an explosion or a windstorm and he has no explosion or windstorm policy.

SCULPTURAL ADVERTISING

By Robert H. Orr, Architect

Photos by the Author

FOR several years bill boards have been an eyesore to the lover of nature and things beautiful. They have been the subject of study on the part of national, state and civic organizations and at times have become the basis for political issues. In spite of all these efforts to curb this objectional method of advertising, we still have the bill boards with us. They continue to stretch their unsightly length, height and frame support work across many a fair piece of landscape or street vista. Their appearance has been somewhat improved by ornamental features and landscaping. However commendable this much may be, it is not what art lovers desire, or what the public at large should allow.

Growing out of this advertising feature a new menace appears upon the horizon which is taking on an amazing growth. If not in some way curbed in its infancy, the bill board evil will be but a shadow to what is to come and our highways, byways and street corners will be lined with sculptural monuments rivaling those strewn along the "Holy Way" to the ancient "Tombs of the Mings."

Diamonds are very valuable and extremely beautiful, but if there is an overabundance, they become commonplace; if they have to compete with fair imitations, their value diminishes. The same reasoning may be applied to the many valuable and beautiful possessions of our heritage. Ever since the days of Phidias, sculpture has held an important and lofty place in the art of civilized nations of the world, and no center of civilization or culture is complete without it.

Upon the creation of this form of genius has been lavished vast fortunes. The materials from which it has been wrought are the finest of the particular kind to be found in the quarries of the world, or refined from the purest ores available. The placing of sculptural monuments in national and civic centers, parks, historic and sacred grounds, gardens and halls of fame has been attended with the most profound thought by masters of literature, art, architecture and

A FAMOUS PIECE OF SCULPTURE USED TO ADVERTISE A HOLLYWOOD THEATER

A FLOWER BEDECKED CHAMPION BULL ADVERTISES A LOS ANGELES RESTAURANT

THIS BARNEY OLDFIELD MODEL IS FAMILIAR TO AUTOISTS THROUGHOUT THE PACIFIC COAST

national affairs. The high place to which sculpure has ascended has attracted the attention of governments throughout the whole world and to catch a glimpse of a masterpiece, wherever it has been placed, lifts one's thoughts and stirs the imagination to high and lofty ideals and creates a profound impression hardly comparable to anything, unless it be the wonderful works of nature created by the Master hand, the Creator of the universe.

Architecture has had its beginning, risen to a place of eminence, debased and distorted, passed through periods of Renaissance ever with an upward trend, but always contending every step of the way against ignorant and selfish purposes and many times created out of the thought of least resistance. To increase values, be they monetary or any of the arts or sciences, requires long periods of time, great energy, considerable sacrifice and a greater conception of things real or imaginary. Sculpture, and allied arts, have shared in the progress of architecture, its decline and revival, and the reverse may as well be true, the evils attending sculpture vitally affecting architecture.

BATHING BEAUTY MODELS DIRECT YOUR ATTENTION TO A SEA BREEZE BEACH CLUB

We should view with some alarm the use to which the noblest art is now applied. Witness, if you will, our sculptural monuments conceived to advertise gasoline, cafes, theaters, dairy, club and hotel. After viewing a design and model for a sculptural figure one hundred and four feet high, resting on a pedestal ninety-four feet high, what may be expected next, for this is but the beginning. When sculpture is applied to all other objects that may be used for advertising purposes, including everything we eat, drink, wear, use for entertainment, place of abode, or commercial gain, we wonder how far this kind of objectionable advertising and debasing of art may be carried.

Admitting, if we may, that these sculptural monuments are wrought by experienced modelers, and the subjects are true to nature and well chosen, can anyone forecast just where this is going to end? If these monuments become numberless, will they not lower the standard of sculpture? Will they not become repulsive? Will they not eventually make sculpture, statuary and monuments so commonplace that the real objects of art cannot, except by those especially trained, be disassociated from the commonplace and cause a decadency far reaching in its effect and influence. Even now a philanthropist donating a valuable piece of property to a park commission for public use stipulates "there shall be no sculpture or monuments erected therein."

Throughout all ages sculpture has been a valuable means of conveying a language, or political and social activities of great racial groups. All of which has been done to preserve historical records. Step into a curio or art shop and most every object imaginable may be found cast, carved or wrought in pottery which might be selected by a natural desire and enjoyed according to its merit. The home or shrine to which such objects are taken are not generally thrown open to public gaze, hence there cannot

be attached to them the same criticism applied to the wayside type placed purposely to impress upon everyone's gaze a commodity for sale. Nor can any comparison be drawn between this form of advertising and that printed or illustrated in daily newspapers, periodicals, pamphlets, or like form, which may or may not be read or viewed, according to the desire, nor can this method of advertising obscure the landscape or detract in any way from things of nature, like these sculptural monuments thrust upon youth and age, not even considering the impression made upon the young or the refinement and culture of the matured.

These illustrations show the beginning and they are being made and erected in limitless numbers and set up on private property along congested public highways with and without reference to any formal setting, but always for the sole purpose of attracting the attention of the public, not to art for art's sake, but to commerce.

Sculptors, artists, architects, engineers, clubs and civic organizations of all kinds should lose no time in registering their disapproval and taking definite action to control this infant brought into being for commercial gain without respect for the thoughts of those whose ideals for a fair country are to preserve our boulevards, parkways and landscape for more noble and worthy purposes.

ANOTHER STATUE INTENDED TO DRAW THEATER CUSTOMERS

COPYRIGHT IN ARCHITECTURE

"Architectural copyright is a subject that has long worried our European confreres much more than it has us," says a report to the American Institute of Architects from Mayor George O. Totten, Jr., of Washington, D. C., who has attended every congress since 1897.

"They seem to take the attitude that somebody is going to copy their designs, and, therefore, they want to copyright them. We do not seem to have that feeling. If anybody imitates our designs we feel rather flattered.

"Another point that comes up in connection with the question of copyright in books is the reproduction of designs. The author of the design should receive some recognition for it. There is one factor that applies in America.

"On all the stands in Washington are postcards of the buildings. I have bought many of those cards and looked over them in vain to find the names of the architects. I have never seen the name of an architect on one of these postcards. I think largely because they are afraid that it may advertise the architect.

"Questions involved in the protection of legal rights arose in Europe some years ago. The French have solved the problem by the use of the word 'diplomé.' Architects who have passed through certain schools have the right to sign themselves 'Architect Diplomé.'

"In many of our cities now we protect to some extent the title by requiring registration which gives those who are qualified the right to sign themselves 'Registered Architects.' "

THIS "WORK OF ART" CALLS ATTENTION TO A PARTICULAR BRAND OF CERTIFIED MILK

AVERAGE LIFE of OFFICE BUILDING is LESS than FIFTY YEARS

INTERESTING DISCUSSION of OBSOLESCENCE

By Geo R. Bailey — Research Engineer

THAT the period of 50 years commonly assumed for the life of an office building is too great and that 3.2 per cent of the original cost spread over a time of 34 years is a minimum allowance for replacement, are the important conclusions of an interesting discussion of building obsolescence in a special report of the National Association of Building Owners and Managers entitled "Office Building Obsolescence, A Study of the W. C. T. U. Temple, Chicago." This report gives detailed evidence of obsolescence due to design, construction and equipment of an office building. Obsolescence is differentiated from physical depreciation, both of which are of course important in guiding owners and architects in the design and construction of buildings as well as in affecting income tax deductions.

Causes of obsolescence are quoted as follows:

(1) The normal growth of the business district.

(2) The shifting in location of the business district.

(3) Erection of newer buildings of a different type and style.

(4) The greater efficiency in the layout and operation of newer types of buildings.

(5) The more modern and complete service which the newer buildings give their tenants.

(6) Damage caused by new buildings adjacent to an old building so cutting off the light and air of the older building as to diminish the value of its space and consequent earning power.

Extracts from the report follow: "This building was completed in 1891 from plans by Architects Burnham and Root of Chicago. It had solid masonry walls and steel interior frame, with floors of tile arch construction, representing the most approved type of construction of that day. The total cost was $987,628, about 39 cents per cubic foot.

"The typical portion of the Temple building is taken as extending from the second floor to the tenth floor. The building was of wall-bearing construction with interior steel framing. Fabricated steel columns supported girders and beams with outer support at bearing plates and spandrel beams in the walls. The walls were solid masonry, 42 in. thick. Floors were of tile-arch construction, finished with oak flooring, or mosaic ceramic tile in corridors and elevated lobbies. Outside of the roof construction, the steel frame suffered practically no damage. The majority of the steel columns and all beams and girders were in perfect condition. In no instance did the beams show signs of either oxidation or corrosion, in spite of the fact that the top flanges came within the cinder-fill of the floor.

"All structural members had been given a coat of what appeared to be lead and oil paint. It was similar in color to the maroon japan used frequently in these days as a protective coating. Much of the steel retained this paint covering and where the paint had disappeared the metal itself had been preserved in perfect condition. The fact that so much of the steel retained its paint in fair condition seems to question the economy of painting all structural members in a new building. It would appear that to paint the columns carrying hot and cold water lines, and possibly the exterior framework, would be insurance enough against depreciation, especially in the case of concrete walls. (A steel frame for a brick or terra cotta building, however, should always be painted.)

"The roof of the Temple building offered one of the best examples of obsolescence in the structure. It was a gable or peak roof broken up with more than 50 dormers, which produced complications in the form of bad leaks during storms and the breaking up of top-story offices into irregular space. Although the 12th floor was one of the regular floors and received full elevator service, the effects of the roof extended as far down as the 10th floor, where the walls

pitched back near the ceiling to conform to the steep roof slope. This slope was 30 deg. from the vertical and was evidently considered sufficiently steep to insure the roof against leaks.

"Roof tiles were laid in a cement of some type, although this had been almost entirely washed away, and were also wired to the iron sheeting. The corroding of the wire fastening on each tile allowed this material to break away and leave a section of unprotected roof. Water worked under the tile covering and not only damaged the cement and rusted wire ties and the iron sheeting beneath, but leaked into the rooms below.

"The brickwork, everything considered, was not in a good state of preservation. The appearance of the exterior veneer of face brick was good, due to the mortar joints, ⅛ to 3/16 in. thick and averaging 1 in. in width. The poor condition of the masonry was not due to the brick in this veneer course, nor to the craftsmanship, but to the worthless state of the mortar, which had lost most of its cohesion, so far as the brick was concerned. It had been tinted with mortar color and was very hard and brittle. The face brick was exceptionally dense on the mortar faces and offered but little grip in the first place. As soon as this mortar dried out, which had been accelerated by laying the brick in very dry weather without wetting it down, or through some action on the part of the mortar color, there was practically no bond left between the bricks. From face brick picked at random, the mortar broke away in brittle pieces like glass.

"While the walls were being wrecked it was evident that the bond between face brick, as well as between face brick and common brick, has been destroyed. As soon as the load was taken off, a large percentage of these bricks could be removed by hand. Where any difficulty was experienced in removing them in this way, a slight leverage with a pick was sufficient to loosen four or five courses, the joints pulling apart and the bricks remaining entirely loose in their positions.

"The spread foundations of steel and concrete were obsolete, not because they were of the spread type rather than concrete piers, but their obsolescence was in the construction design. Concrete was used as a bedding and a filler with compressive value, rather than as a structural material, as it is used today. These foundations were not only costly but allowed a settlement that proved destructive.

"While obsolescence of layout is an intangible consideration, it is a great factor in the financial history of any structure. Progress in tenancy has been marked by an increased efficiency of office furniture and its arrangement, and has resulted in a diminution of the space required in which to transact business. Modern tenancy demands a different column spacing to facilitate economical division of office units. Old buildings do not lend themselves to modern subdivision without the sacrifice of considerable space.

"This old style column spacing diminishes revenue and represents obsolescence. The major instances of construction obsolescence lay in the thick walls and floors, which used a great amount of space. With modern construction, there would have been at least 1000 sq. ft. of additional rentable area on each typical floor. This represents 8000 sq. ft., which at $4 per square foot amounts to $32,000 per year.

"To attempt to put in figures this obsolescence of construction, the only premise on which to base the computations would be that of a unit cubic-foot cost. This premise does not actually hold in all cases, but for the present consideration, where added height is reflected in wall construction over the entire perimeter of the building, it is not so far out of line but that figures reasonably representative of the actual cost may be obtained through its application.

"The thickness of the floors being 21 in., meant that 64 in. more vertical height of construction was necessary than would have been needed had the modern 13-in. floor been in vogue. This extra height required 74,000 cu. ft. At that time the construction cost was 39c per cubic foot. The added investment, therefore, was $28,860, and this amount should be subject to the carrying charge items of interest, depreciation and taxes, or at usual rates, to 10 per cent per annum. The charge due to this item of obsolete construction in the typical section of the Temple building, amounted to $2,886 per year. This figure, combined with the $32,000 additional rental which might have been obtained had the walls occupied less space, amounts to $34,886 per year, which should be assessed against the obsolescence of construction.

"Modern design would have provided considerable additional space in this ground portion of the Temple. By cutting down the thickness of the walls from nearly 5 ft. to 17 in., about

(Concluded on Page 62)

ONLY A SMALL QUANTITY OF WATER PROVIDES EXCUSE FOR THE CHARMING TERMINATION OF A VISTA AFFORDED BY "THE GOOSE GIRL" IN A NICHE AGAINST THE WALL. SUCH A SEMI-FORMAL TREATMENT WOULD BE SUITED TO ALMOST ANY STYLE OF GARDEN.

LANDSCAPE ARCHITECTURE

Edited by Professor J. W. Gregg

WATER in CALIFORNIA GARDENS

By MARJORIE DOBBINS
Landscape Architect ~ Berkeley - California

"A GARDEN without water is like a body without a soul." Nowhere is this truth more evident than in California, where the dry climate puts a high premium on water in any form, whether used for economic or aesthetic purposes. Here, especially, where we have learned the value of water and know that without it a garden cannot exist, we feel the need of seeing it before us, visibly contributing to the growth of the verdure. A garden with no water in sight lacks naturalness and spontaneity. In addition it fails to provide the positive pleasure of cool and refreshing sound, and the sparkle and motion that give life to any scene. Water is not only the focus of attention wherever it appears, but it establishes the character and mood of the surrounding landscape. A level, quiet pool, for example, brings peace and contemplation to the mind of the beholder, while the rhythm of rapidly falling water subtly accelerates the tempo of our thought. A garden without water is indeed often a lifeless thing. Practical and aesthetic uses go hand in hand, the one supplementing the other, and making one or the other more significant.

Because water is especially welcome to the senses in California we must not be discouraged by its lack of abundance. If the effects obtained in more favored portions of the country are perhaps denied us, we can, by taking thought, achieve a charm just as real, even on a smaller scale. We have, let it always be remembered, the possibility of using the same water over and over again by means of the water pump, a device which is being used with constantly increasing favor.

In a new country such as ours we can learn much from the experience of the older nations of Europe. The Italians, for example, more than any other people, achieved wonderful effects with small quantities of water. They conducted water down their hillsides from terrace to terrace, using it in various ways on different levels, —a fountain here, a pool there, a companionable rill dropping musically down the steps, and finally at the bottom they distributed it for irrigation purposes. One of the most inexpensive, and at the same time attractive Italian fashions of using water, is in the wall fountain Here the water drips quietly from a lion's head or sculptured figure set in the wall, into a basin or small pool beneath, and makes an almost inappreciable difference in the water bills, at least no more than the leaking faucet we so often see. The plumbing may be installed as simply as for an ordinary faucet, with a small supply pipe, a half-inch or less, and a slightly larger pipe to drain the basin below. The hard outlines of the surrounding concrete or stone are softened by vines, trailing ivy, ferns, or potted plants. Bits of statuary or flower vases are often used in conjunction with such a feature.

The Spaniards and Moors have examples of special interest to us, due to the widespread use of Spanish architecture in California. Among these peoples the inner court of the house was the center of family life, and the fountain was the heart of the court garden. Tile basins of varying proportions received the falling rain of slender jets. The coping was usually a foot or two feet in height, although occasionally the basin was sunk entirely below the surface of the ground. The pools were designed in geometrical shapes, with varied arrangements of obtuse and acute angles. Potted plants were much used around the borders of the basins. Water was sacred to the Moors, and especially refreshing in their hot countries. Consequently they used it abundantly to cool the air and enhance the fragrance of their flowers; but always they used it delicately, in graceful small jets, in runnels in the pavement, or in long narrow canals. Their methods are peculiarly suited to the climatic conditions of California, and the small scale of their courtyard gardens lends

itself to adaptation in our confined city lots.

The English style of gardening is interesting to those of us who do not live on the hillsides, as did so many of the Mediterranean peoples, but on level or softly rolling ground. The broad landscape style is, of course, not so easy to reproduce in a country where water is scarce, and is for that reason more suited to northern than to southern California. Its many beauties make it worth a little extra effort to obtain, especially in naturally shaded and favorable locations. The typical ways of using water call for little construction and are inexpensive to maintain. Simple pools are placed in the lawn, in prominent or secluded positions according to the degree of formality of the surroundings. The coping or curb should never stand more than four inches above the garden grade, and the closer it is to the surrounding grade the more pleasing will be the appearance. One of the greatest pleasures of a garden pool is in the presence of aquatic plants. A single water lily is often sufficient, for the reflecting surface is spoiled if crowded with too many plants. The planting on the margin is also an important consideration. If there is an uninteresting cement coping, it is imperative that it be partially concealed. Moisture-loving plants such as reeds, rushes, and ferns are especially desirable, and usually will obtain enough water from seepage through the walls or occasional overflow from the top. The full possibilities of a pool are not realized if there is no planting in the vicinity high enough to be mirrored in the water.

Rocks in combination with water are a never failing source of pleasure. A little rock garden tucked away in a shady corner with an agreeable accompaniment of a thin sheet of water trickling over irregular surfaces, perhaps dropping over a short fall, forms a picturesque spot, and when come upon suddenly affords surprise and mystery—two valuable elements of garden design.

The bird bath is one of the most modest of all settings for water, and deserving of wider usage in our small home grounds. It is not only pleasing as a sculptured feature, but has the additional merit of attracting birds to the gar-

THE NATURALISTIC POOL IN CALIFORNIA MAY WITH LITTLE EFFORT BE MADE THE FOCUS FOR SUCH LUXURIANT GROWTH AS APPEARS ABOVE. THE LILY PADS AND GIANT REEDS ARE WELL GROUPED AT ONE END TO FORM A PLEASING SETTING FOR THE WATER.

den, which is enlivened by their motion and song. The basin, which is preferably placed on a fairly high pedestal to give protection against preying cats, may be procured with varying degrees of sculptural ornamentation, at proportionate cost. Occasionally the water is allowed to drip over the edge into a larger basin beneath. Water should be furnished directly through a pipe connected with the general water supply.

Aside from the life-giving qualities of the water itself we see that one of the most important reasons for introducing it into any picture is the interest that attaches to its setting. A country such as ours whose development is still in its early stages presents an opportunity to the garden builder of today to cultivate his imagination along new lines. There are innumerable ways of framing water, conventional or unconventional, and we have seen the methods of the old countries given a fair trial. California is perhaps not so young now but that she may begin to create traditions peculiarly her own.

IN THIS SMALL SPANISH BASIN AND JET WE SEE HOW SIMPLY A BIT OF SPARKLING WATER MAY BE ARRANGED TO GIVE LIFE TO AN OTHERWISE PLAIN AREA. THE RUNNEL ON THE LEFT CARRIES THE OVERFLOW TO A LOWER LEVEL, WHERE THE WATER IS USED AGAIN.

MEETING OF LANDSCAPE ARCHITECTS

The third quarterly meeting of the Pacific Coast Chapter of the American Society of Landscape Architects was held Monday, September 12, in the rooms of the City Club in Los Angeles. A large attendance was present, and the principal topic of discussion concerned the next annual exhibition of the Chapter to be held in Los Angeles this fall sometime during the month of November. It was also decided that the exhibit should be forwarded for later display at the University of California and San Francisco, if the northern members of the chapter felt that such an exhibition would receive a favorable reception in this section of the state. The exhibit of the Chapter has become an annual event in the south, and it is felt that its influence should be extended to the bay district in northern California. Definite dates for the exhibition, both in the south and in the north, will be announced later.

The Chapter further discussed and went on record as favoring a definite standard width of parking to permit of the proper planting and care of street trees along the streets in residential sections. The resolution adopted follows:

WHEREAS, numerous local members of the PACIFIC COAST CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS have been addressed by Gordon Whitnall, director of the City Planning Commission, requesting their opinions as to the cross section of normal, sixty-foot residential streets, first, as regards the mechanical efficiency of a 34 foot pavement

width to accommodate traffic flow, and second, the question of what width is proper to adequately care for street trees;

AND, WHEREAS, these same questions have been formerly put up to the members of the society by the secretary, with the result that the overwhelming opinion of our membership recommended a minimum width of at least 7½ feet for proper street tree planting and maintenance; and further expressed themselves as recommending a thirty-four foot maximum pavement for the normal sixty foot street;

THEREFORE, BE IT RESOLVED by the PACIFIC COAST CHAPTER in their regular meeting held this twelfth day of September, 1927, that the above opinion, as expressed, be now confirmed as a vote of the Chapter; and be it further voted that this resolution be sent to Mr. Gordon Whitnall, to the Regional Planning Conference, to the County Board of Supervisors, to the City Council of Los Angeles, to the Realty Board, to the City Planning Association, and to other official bodies in the cities of Los Angeles County, in the hope that the campaign toward correcting the unfortunate situations that now exist in providing for and maintaining street trees in residential neighborhoods may be carried to a successful issue.

This is intended to serve as a guide for city planning commissions and other bodies or individuals interested in residential development, particularly where tree planting problems are important.

PRICE CUTTERS EASY TO FIND

"Who is going to do your work?" I asked my neighbor, a physician who never before built a home and who now is having a considerable addition to his residence constructed.

He gave me the contractor's name.

"Was he low bidder," I asked.

"Well, not at first," the doctor replied. "But he made me an offer after the bids were in. They were all too high on some tile work and he made enough cuts there and on other items to be low."

This owner is the kind who builds once in a lifetime. Yet he knew that among seven bidders, all of them considered by his architect eligible to bid on the work, one at least would be found who would cut his price to get the job.

The point is that building contractors have not yet built a reputation for abiding by ethical conduct. The one-time builder knows as well as the man in the game that he can find a price cutter. And the correction of this situation can come only from the contractor. The man who wants a building erected is not concerned with builders' ethics. They are important to him but he seldom recognizes it, and it is rare that he will let his pocketbook suffer to keep up standards in the other fellow's business. If he can get his building cheaper because a reputable contractor cuts his bid, he'll accept that saving. Only the contractor himself can improve his reputation. He can only get a better price by demanding it and sticking to his demand.

—Constructor.

LIFE OF OFFICE BUILDINGS

(Concluded from Page 57)

700 sq. ft. might have been recovered on the mezzanine and 1,000 sq. ft. on the ground floor. This space, assuming values of $5 and $8, respectively, per square foot, represent an increase in annual income of $11,500. Again the extra thickness in the floor construction represented additional volume, amounting to 23,000 cu. ft. With a unit construction cost of 39c, the annual charge of 10 per cent against the cost of this extra construction amounts to $897. The charge against obsolescence of construction design for this portion of the building therefore was $12,397 per year.

"Summarizing the annual charges to be placed against obsolescence of construction design, the figures for the three portions of the building are: Typical portion, $34,886; upper portion, $6,100; ground portion, $12,397; total $53,383. This total represents approximately what might have been received in addition to the actual gross income, had the construction design been modern rather than the design of 35 years ago, plus the 10 per cent charge customarily made in such estimates, against the investment represented by the extra amount of construction. The charge cannot be explained away on the basis that no allowance should be made for mistakes in the original design, for these examples of thick floors and walls were not mistakes. Such design was the latest at the time the structure was built.

"In maintaining book values for office-building investments it has been a common practice to consider depreciation as running from full-value at the time of the original investment to no-value at the end of a specific period of time. The study of the Temple building indicates that the period of fifty years, commonly assumed for the life of an office building, is too great. Also, as the cost of the structure's original cost, the limits of full value and no value seem to be erroneous. The establishment of a fund to replace the building at the end of its useful life would have had to be based upon a depreciation extending from full value, to a negative value of $95,000 (the cost of wrecking in addition to all salvage). Spread over a period of 34 years this represents 3.2 per cent per year. Considering that the Temple was well built and modern for its time, and that it experienced no obsolescence of location, this figure of 3.2 per cent is a minimum allowance for office buildings.

ADVERTISING *for the* ARCHITECT

By A. L. Ferguson
in Southern Architect and Building News

Editor's Note:—Part I, of this series of articles on "Advertising For The Architect" by Mr. Ferguson appeared in the August number. Mr. Ferguson outlined in a definite and most interesting way the characteristics of the average architect, his temperament, how his office works and the many problems to be solved in the architect's office.

THIS brings our discussion then to the various means available of influencing the architect. For the purpose of clearness, three of the most important of these are listed below. The arrangement has nothing to do with relative importance.

(1) Magazine advertising.
(2) Direct-by-mail literature.
(3) Sales representatives or missionaries.

Each of these divisions is more or less dependent for its success upon the other and the advertising manager should always keep before him the importance and, in fact, the vital necessity of an adequate tie-up of all three.

The subject of magazine advertising is one which presents a very wide range of approach. There are probably almost as many opinions regarding the value and means of advertising in trade publications as there are advertising managers in the country. Each has his own ideas on the subject and each is using these ideas to present his product to the architect. The results are in many cases far from those desired but all too seldom are the campaigns revised to accord with modern methods of selling as adopted in other lines. This applies particularly to architectural publication advertising.

Before entering into any detailed discussion regarding the above statement, let us try to determine what magazine advertising can hope to accomplish and what are its limitations. In the first place, magazine advertising should be looked upon as a means of developing a knowledge of the name of any particular product and good will on the part of the architect toward that product. Just as the sales of such manufactured articles as phonographs, cameras and chewing gum have grown through the manufacturer of any building material attempt to impress upon the architect or the specification writer the name of his product. It is second nature for the average person when thinking of phonographs to say "Victrola," or of cameras to say "Kodak." The results which have been accomplished by advertising for "Wrigleys" are too well known to need repetition here. Of course, such products have other means of reaching the general public than magazine advertising. But the principle is the same and the results should be proportionately similar if the advertising is prepared in the proper form to appeal to the architect.

Although some architects make a regular practice of studying closely the magazine advertising, claiming they can thus keep "up-to-date" on new products and devices, the average architect probably seldom sits down with any architectural magazine with the express purpose of reading and digesting the advertising appearing therein. The casual glance which he gives to the advertising must suffice to impress upon his mind the name of a particular product or the advertisement must be so forcefully prepared and presented as to immediately attract his attention as he turns over the pages.

A second point which most advertisers desire to accomplish through their magazine advertising and one upon which they very often judge the merits of any particular publication, is the number of "requests for more data" resulting from their copy. It is rare indeed to glance at the advertising in an architectural paper and not find on practically every page the words "Write for further details," "Send for Specifications" and similar phrases, each of which is designed to give "leads" to the advertisers.

There are, in the architectural magazine field, certain publications which will give better results from the standpoint of numbers of requests than others. This fact is known and recognized by practically all advertising man-

agers. The question remains, however, as to whether or not the advertising appearing in other publications which do not give as many leads, does not, in the long run, accomplish as good results.

The advertising manager or advertising agency preparing copy for architectural consumption should occasionally take architecture magazines which appeared 20, 15 or even 10 years ago and study the advertising appearing therein. It will be most interesting to note the change in methods of presentation, type subject matter, illustrations and other features. This study will indicate immediately the trend of the type of appeal which can most advantageously be used for the modern architect.

In this connection, it will be noted that some firms are following the same arrangement of text and layout, the same kind of type and practically the same subject matter today as they used ten years ago and often it will be found that these firms are the ones which have been supplanted to a considerable extent by more aggressive and progressive competitors.

It is of course, impossible to set forth any definite rules which will always accomplish the results desired in magazine advertising but the following may be of interest: In the first place the appeal should be as striking as possible without being irrelevant. This may be accomplished in several ways. The use of color has, of course, become one of the fundamentals of modern advertising and it has been found that the average architect is attracted to a good color illustration more quickly and will give it better attention than by any other means. In this connection, however, the color illustration should always be the best obtainable. The art work and the color reproduction should never be crude or glaring. The architect is essentially a critic and for this reason, the better the art work and color, the more appeal the advertising will have. Cheap color work will, in practically every case, react unfavorably toward the product using it.

The same suggestions apply to the use of photographs, pen and ink drawings, pencil sketches and detail drawings. These should always be as clear and clean cut as possible and, if finances permit, should be done by recognized artists.

One fault which is still altogether too prevalent in modern architectural advertising is the attempt to crowd too much within a given space. In almost every case this defeats the object of advertising, especially if the text matter is long and complicated. The architect will seldom take the time to read closely printed text and as a result, the space may be practically wasted. With regard to typography, it should be remembered that good type, clean cut and easily read, is essential.

It will be most enlightening to the advertising manager if he will take a current architectural publication and compare the advertising therein with the advertising appearing in such publications as "Good Housekeeping," "Vogue," "Harper's Bazaar" and like magazines. The difference in treatment, approach, arrangement, typography and illustrations is at once apparent. The advertising appearing in such magazines is arranged and studied carefully to have a direct appeal to the feminine mind. The pages are seldom overloaded with text, the illustrations are invariably most artistic and the message can usually be caught at a glance. Consider the foregoing points and then study some of the advertising appearing in the architectural publications.

It may quite properly be said that there is considerable difference in preparing copy for the class of readers of the type of publications mentioned above and the architect. This is admitted but there still remains the fact that the architect is an individual whose senses can be reached by much the same means as can the layman and there is no doubt but that advantage is being taken of that fact by the more successful advertisers.

Many authorities on magazine advertising to architects maintain that working drawings showing methods of installation, application, etc., are particularly valuable in their appeal. This may be the case for certain products but under ordinary conditions the space does not permit large enough reproductions or enough explanatory text to "sell" the architects on the material through this one medium only.

It should be axiomatic not to attempt to accomplish too much or "cover too much ground" in magazine advertising.

Now let us consider that field of advertising in which there exists probably the greatest of all waste, namely—the direct-by-mail advertising of the building material manufacturers to the architect. Direct-by-mail advertising usually means sending some form of literature describing a particular product directly to the addresses by mail. This literature may take the form of catalogues, folders of almost any

shape, size and description, leaflets, blotters, broadsides, form letters which may be printed, multigraphed, mimeographed, typed or otherwise duplicated by any one of many methods.

In view of the numerous favorable reports and analyses of the subject, there can be no doubt that direct-by-mail advertising exercises a considerable influence over the purchasing complex of the average individual. With this direct-by-mail advertising to the average person, we have no quarrel but as has been previously pointed out, due to his training and type of work, the architect must be approached in a slightly different manner than the average person, at least in this particular phase of the advertising problem.

Some time ago we received a letter from a very prominent architect in which he discussed at considerable length the waste in the distribution of calendars each year by the manufacturers of building materials. Because his letter states the problem very clearly and also sets forth the attitude of the typical architect toward this waste. I quote extracts from his letter below:

"Every day now, long pasteboard tubes arrive in the mail, each one containing about a dollar's worth of paper, together with about the same amount of printer's work. On top of that is the matter of preparing for mailing—addressing, postage and the incidental work of the post office employes.

"These calendars go from the post office box across to the office waste basket. No architect has any use for them. They simply remind him of the high cost of tracing paper, blue print paper, detail paper and stationery paper, 'because of the scarcity of paper stock.'

"In every town, the local merchants send out calendars sufficient to provide for the local architects. Besides, every architect has his combination 'desk calendar and memo' that he buys. He doesn't need these other calendars.

"The same amount of paper stock in the form of pads for notes, sketches, etc., would be quite acceptable, because useful. Pencils, erasers, scales, if of proper quality, would also be appreciated.

"Yet, I believe most of us would prefer 'rock bottom prices on building materials and no favors' since that would help 'work'.

"If they must spend money in advertising, tell them to give us 'information' about their material. By information, I do not mean information as to where it was used and how fine it looks. I mean information as to what to look out for and how it may cause trouble.

"Every manufacturer of building materials has a long story to tell if he will only tell it. Let him use paper stock for this purpose instead of for calendars."

As this architect has pointed out, the manufacturers of building materials have a vast amount of information regarding their particular products which the architect must know before he can properly specify and use that product. It is therefore the duty of the manufacturer as well as his best selling point to provide the architect with that information.

In discussing the subject of direct-by-mail advertising, perhaps it will be well to divide this type of advertising literature into two classes. The first of these may be designated for the purpose of convenience as "Throw Away" literature and the second "Retained" literature.

Unfortunately in preparing an advertising program the manufacturer and his advertising manager or agency rarely study the problem from these two angles and then prepare his literature accordingly. If they did, there would be probably very little complaint about the direct-by-mail advertising sent to the architect.

We have previously discussed the average day of the average architect who does not have a large office. In that analysis it was pointed out that when the architect is reading his mail, his mind is almost necessarily occupied with many other subjects relating to the work in hand. He cannot give either adequate or proper attention to each piece of literature that crosses his desk. He cannot take the time to carefully select those worth while retaining for his files and those to be immediately consigned to the waste basket. It is natural therefore that he should throw away much good material which should be retained, simply because he cannot take the time to study it or afford to maintain the large filing equipment which would be necessary to properly classify and file all the literature which he receives.

It behooves the advertising manager to keep these facts in mind in preparing his literature for architectural consumption. Before preparing a piece of copy, he should decide the exact purpose of the copy, whether it is to be "Throw Away" literature or "Retained" literature; i. e., whether it is intended to merely impress the name of the product upon the architect by means of illustration showing the prod-

uct and its uses, by quotations or testimonials from architects who have used the product, etc., or whether the literature is to be prepared in such form that it contains essential information which the architect should maintain in his files for reference when he decides to specify that product.

"Throw Away" literature usually takes the form of postal cards, folders in various shapes and sizes, letters, leaflets, etc. The main purpose of this material in the last analysis is to bring home to the architect the fact that "So and So's" product is the one he should use in preference to others in the same field. Before preparing this type of copy, the advertising manager should consider whether he is willing to have the literature merely glanced at by the architect and immediately consigned to the waste basket and whether the investment in time of preparation, printing, engraving, addressing and postage will be justified by this casual glance. If he decides that the investment is small and that if only a dozen architects out of a mailing list which may contain 8,000 or 10,000 names should use his product, then he should proceed to draft his copy accordingly.

There are doubtless many different opinions as to the value of this "Throw Away" literature. It is the opinion of the writer that in very few cases is the investment warranted by the results. The writer feels that this amount of money applied toward a well designed, well-prepared publication describing the material and setting forth methods of use, etc., will be far superior in reading power to any amount of "Throw Away" literature but many advertisers and agencies do not feel this way. It may, perhaps therefore be advisable to study for a moment the various types of "Throw Away" literature which are received by the average architect every day.

First of all, the large "broadside." This, of course, may take any number of variations of forms. One of the most common is to have printed upon a sheet, large enough to cover the top of an ordinary desk, certain facts regarding the material, sales arguments, etc. This sheet may be folded as many as six or eight times and usually contains on the outside the address of the architect and some phrase or word which the advertising manager believes is clever enough to attract attention and encourage opening of the folder.

It might be said in passing that these catch words seldom relate to the product and often give absolutely no indication of the material mentioned within the folder. This is usually bad because, in probably nine cases out of ten, the architect will throw the folder into the waste basket without knowing to what it refers or attempting to unwind the numerous creases and folds which make up the sheet.

Another favorite method of direct-by-mail advertising is a letter accompanied by one or two folders, leaflets, usually in small sizes, or cards on which are printed various pieces of information regarding the material which in the last analysis did not say anything except what a wonderful product it is. The letter, if opened at all, is usually addressed simply to the architect and is obviously a duplicated letter of some form or other. The architect seldom gets beyond the first word or two and in many cases never opens the leaflets.

It would be almost impossible in an article of this kind to describe all the various forms of advertising which ultimately reach the architect's desk. They are far too numerous to mention but the destination is usually the same—the waste basket, and they seldom receive even the glance necessary to impress the name of the product upon the mind of the recipient.

So much for the destructive criticism of this type of literature. Now for the constructive side. What form should this "Throw Away" literature take in order to be impressive to the architect and to receive more than a casual glance? The principles previously laid down for advertising in magazines apply very well here. In the first place the size of the literature should be standard, it should be convenient to handle, the printing should be the best obtainable, the type should be clear cut and distinct, the illustrations should be attractive and long sales arguments should be omitted. Illustrations showing structures in which the material has been used may be of some value, if of good architectural character and designed by prominent architectural firms. The illustrations should give not only the name of the architect but the name of the contractors, the date upon which the building was erected, the amount of the particular material used in the structure and a report upon its present condition after years of service. Long paragraphs should never be used and headings indicating the subjects mentioned are valuable.

Elaborate color illustrations are not so necessary here as in the other phase of advertising.

(Concluded on Page 104)

THE PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

THE PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

THE PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

PATIO, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

PATIO, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

Photo by Wm. Clarke

NIGHT VIEW OF PATIO, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

PATIO, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

MAIN CIRCULATION ROOM, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

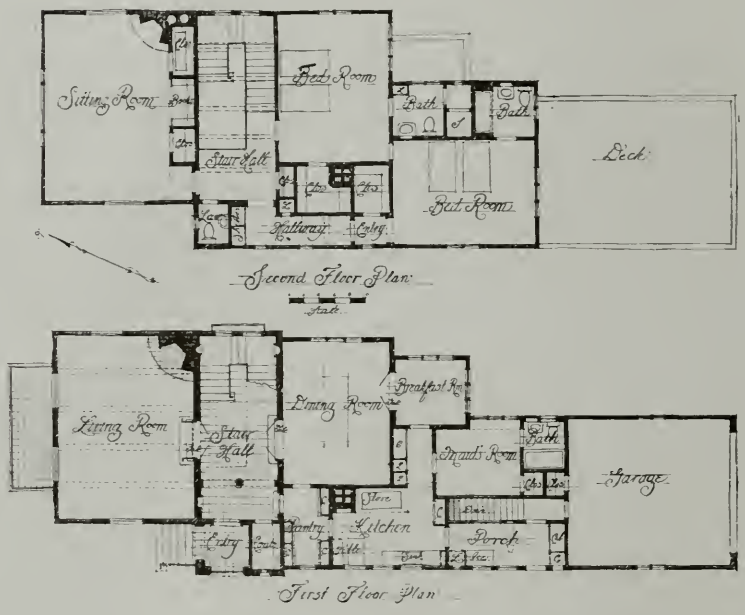
SOUTH FACADE, PASADENA PUBLIC LIBRARY BUILDING, PASADENA, CALIFORNIA

MYRON HUNT AND H. C. CHAMBERS, ARCHITECTS

H. H. Larsen Co., Builders

HOUSE OF MR. HENRY KANTER, SEA CLIFF, SAN FRANCISCO

WILL H. TOEPKE, ARCHITECT



PLANS, HOUSE OF MR. HENRY KANTER, SEACLIFF, SAN FRANCISCO

WILL H. TOEPKE, ARCHITECT

SAN FRANCISCO
PUBLIC LIBRARY

Tiling by Dix Johns

RECEPTION HALL, HOUSE OF MR. HENRY KANTER, SEA CLIFF, SAN FRANCISCO

WILL H. TOEPKE, ARCHITECT

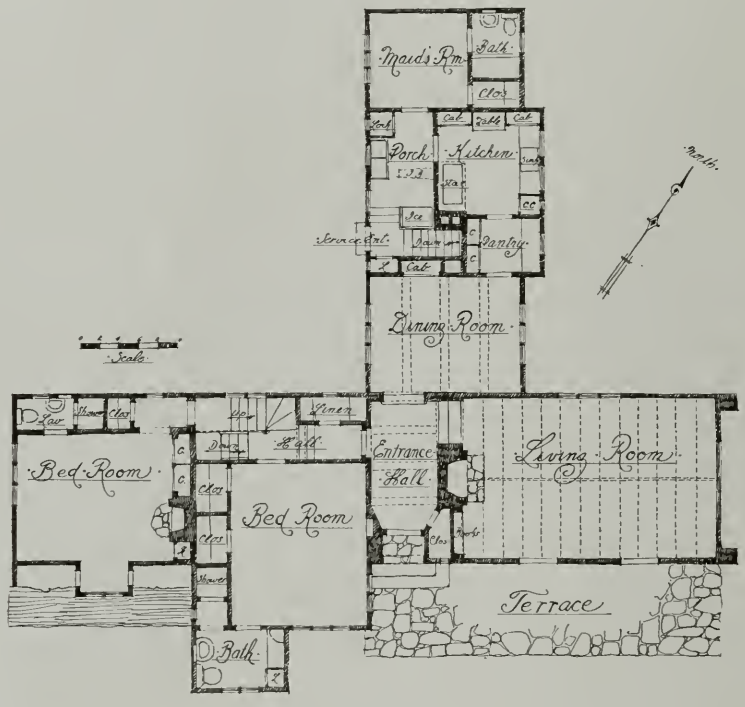
Gates by Sullivan Iron Works

INTERIOR, HOUSE OF MR. HENRY KANTER, SEA CLIFF, SAN FRANCISCO

WILL H. TOEPKE, ARCHITECT

The ARCHITECT AND ENGINEER

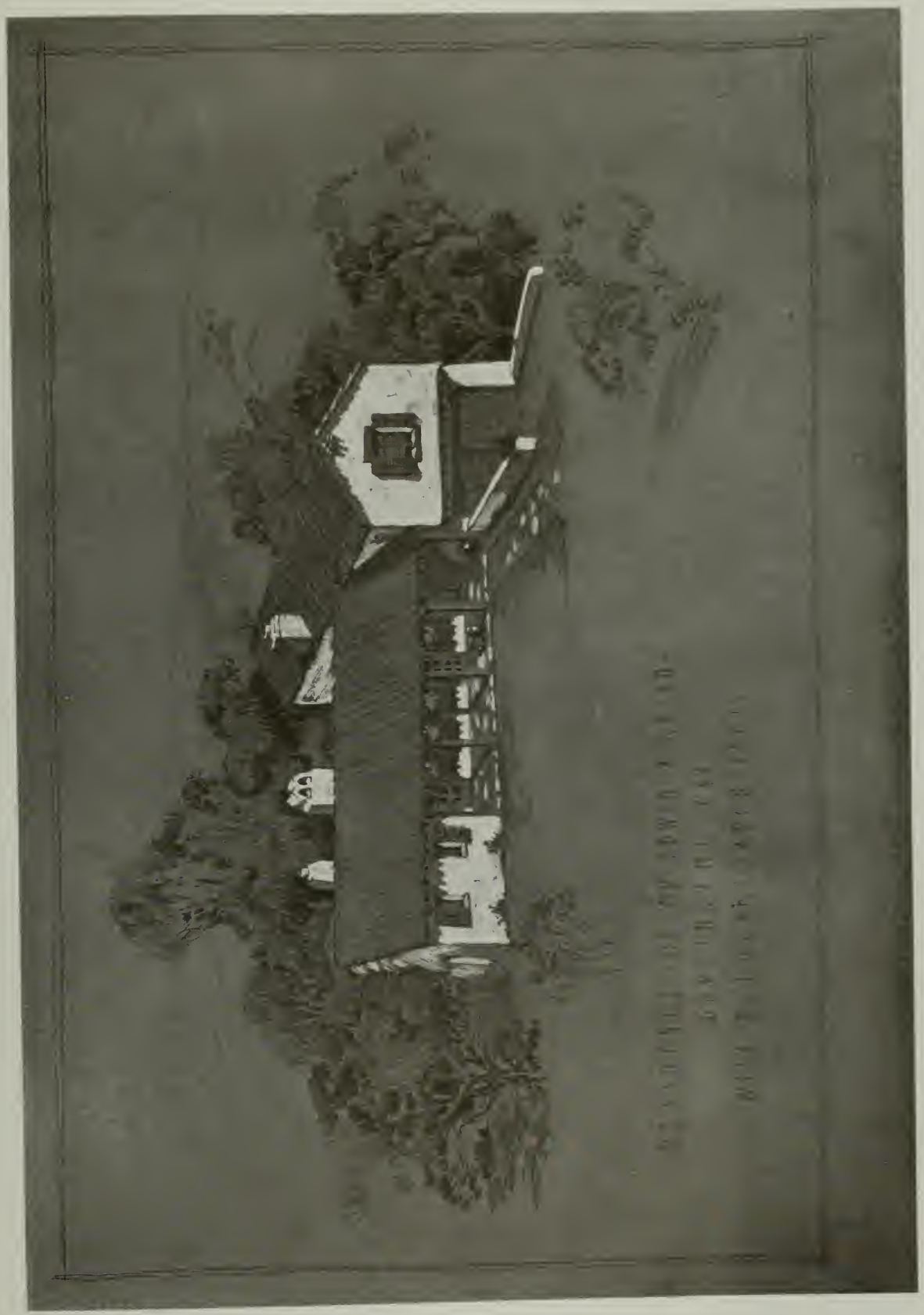
HOUSE OF MR. HAROLD E. CASEY, HILLSBOROUGH, CALIFORNIA
WILL H. TOEPKE, ARCHITECT



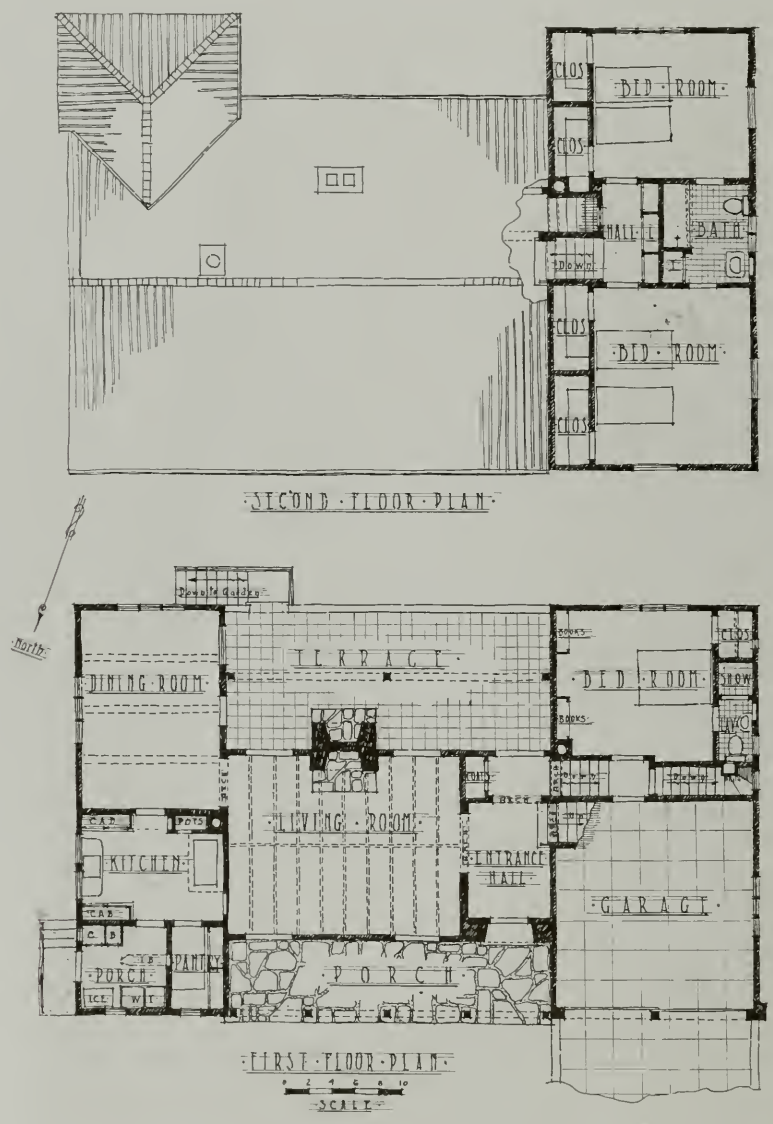
PLAN, HOUSE OF MR. HAROLD E. CASEY, HILLSBOROUGH, CALIFORNIA

WILL H. TOEPKE, ARCHITECT

LIVING ROOM, HOUSE OF MR. HAROLD E. CASEY, HILLSBOROUGH, CALIFORNIA
WILL H. TOEPKE, ARCHITECT



HOUSE FOR MR. EDWIN A. GREEN, BURLINGAME, CALIFORNIA
WILL H. TOEPKE, ARCHITECT



PLANS, HOUSE FOR MR. EDWIN A. GREEN, BURLINGAME, CALIFORNIA

WILL H. TOEPKE, ARCHITECT

Tiling by California Faience Co., Berkeley

DOORWAY, HOUSE OF DR. HUBERT HEITMAN, CLAREMONT, BERKELEY

W. H. RATCLIFF, JR., ARCHITECT

(See description on back)

The DOORWAY of the STORY of the WORLD

A MILESTONE in HISTORY

THE doorway illustrated on the front of this page is decorated with a glazed tile mosaic, recounting some of the chief events of history. The background color is a warm tan, and a blue strip of water separates the most of the scenes. Only one color has been used on each tile.

In the first picture, Eve is seated in the foreground, the Serpent coiled about her. She gazes over her shoulder at the apple, drooping in pendulous perfection. Adam, aloof in the background, contemplates nature. The Euphrates river loops the plain. Passing under Babylon's walls, it traverses the city. Babylon is distinguished by its stepped pyramid, devoted to the worship of the sun. A long procession follows. It is Egyptian. The Nile is seen, with a temple gracing the western bank.

A strip of water intervenes in which are displayed a ship, a fish, and the island of Crete, a symbol of the Minoan epoch.

The fourth picture is a representation of the Homeric legend of the wooden horse of Troy. Behind lie the straits of the Dardanelles.

In the fifth scene, Aenaeas is discovered fleeing Carthage. On the shore, Dido reposes on her pyre, a mourning relative beside her. Carthage faces the bay in the rear.

In the sixth division, Athens, crowned by the Parthenon, typifies Greek civilization. Above, Alexander the Great, spear in hand, receives the homage of the kneeling nations of the East. Behind him stands his war car, drawn by two horses.

Scenes eight, nine and ten carry Roman history from its birth to its revival in Charlemagne. In the left hand cover, Romulus and Remus disport themselves under the auspices of the well-mannered wolf who preserved their lives. To the right, Horatius, standing on the bridge over the Tiber, defends Rome from the avenger. The cautious but interested city fathers are observing his maneuvers from the walls and gate of the town. The city extends across the top of the door. In the foreground to the left are two conspirators exchanging schemes. Behind them is the Forum Romanum surrounded by its temples. The Senate House occupies the exact center. The Senatorial Committee on Investigating Anything is holding a public hearing on the porch. To the right stands a legionary armed with spear and shield. In the distance is an aqueduct. The Coliseum and the palaces of the Caesars occupy the remaining space within the wall. Beyond, Caesar, on horseback, crosses the Rubicon. Below Cincinnatus operates his cow-power plow. In the corner, Charlemagne crowns himself emperor while a well-rehearsed Roman people bows submission.

The eleventh picture shows Constantinople dominated by Sancta Sophia and symbolizes the Eastern Empire.

Below, the mediaeval commune is represented by the building of the thirteenth century cathedrals. The group in the foreground is hauling a sledge of stone to the construction.

Florence, in the fourteenth of the series announces the Renaissance. The dome of the cathedral, the first architectural work to reflect the new spirit, occupies the center and the river Arno crosses the city to the left.

The fifteenth era is that of discovery. On the shore of Spain, Ferdinand and Isabella bid farewell to Columbus. The yellow and mystic monsters of the Atlantic flee before the prow of his caravel. Next is the cherry tree scene. The concluding scene is a pastoral one, probably of local significance. A family is cultivating the slope in the foreground. In the rear are houses, the foremost of which, many authorities aver, is the very one in which this fascinating doorway is to be found.

FITZPATRICK'S CHATTER

Has Building Reached Saturation Point? Too Much Copying in American Architecture

SCIENTISTS disagree, one swears our people are growing stronger and better, and the other avers just as loudly that if we keep on as we are going, this will soon be a nation of half-baked runts, and there you are.

So with building. One authority tells us that we must quit building big hotels and apartments and office buildings, these have reached the saturation point; any more spells disaster, perhaps not to the new ones, like your splendid Russ building, but certainly to the old and out of date ones. And the next authority tells us with equal seriousness that that is all bosh; we have just started to build and should keep going.

Like everything else, one must consider which camp each expert inhabits or hails from. Granted that the more fine new buildings are put up the harder it is to fill the old frumpy ones at high rates. That is what encourages the owners of these old ones to tear them down and build better buildings. If you are solicitous over the continued prosperity and profit of the old ones, then call for the soft-pedalling of new structures. Because so far the old things have rented well and at virtually the same rates as the new ones, and, around Chicago, anyway, in all apartments there is but a 6% vacancy, which is that of real good times.

Here is a concrete case. An apartment building was put up 20 years ago; a nice one and well kept. The rents at first were about $75 a month which provided for upkeep, interest, amortization and profit. Today that building's cost remains the same though its and the lot's value have climbed very high, but the rents are $185, and 100% full. Why should that owner not be satisfied with things as they are and why should he not protest the building of more new ones?

But, until an actual slump, 20% vacancies, a reluctance to pay fat rents, actually occur, you will see building going right on full speed ahead and in spite of the alarmists.

Plans are sent to me for revision and "audit" from all sections of the country—and several other countries for that matter—so you can imagine I see every variety of architectural freak, monstrosities of design, pitiable wastes of good building material, lost opportunities, bungled buildings, estimates that are hopeful but only about 40% accurate. Then there are the passably decent efforts, designs that may be ordinary, perhaps hackneyed, but they don't scream at you, the plans are not without sin, but it is of the venial kind, not mortal sins, to use a churchly phrase. A little touching up and paring down will produce a fairly high-class structure. And there are the conspicuously good efforts, where design, plan, estimate, all about the project, are well cared for. There are but few forgotten items. The plans show study and skill, the design indicates experience and considerable artistry, it is a pleasure to co-operate with their author in making things still a little better for it is working with a master craftsman, and that is always a delight.

But once in a while, a set of plans are submitted to me that must cause great joy in Heaven; perfect gems. You go over them exultantly but with a fine tooth comb, your intelligence is challenged for you feel that surely there must be some little thing amiss that you can correct, to justify the plans being sent you, but no, the author has anticipated everything you can think of. The plans are perfect!

I had such a case recently. The plans were not sent in by owner or loan company, but were brought here by the architect himself. He had studied every moment he could get for two months on the project. A fairly tall building, eight stories of hotel and twelve above that for apartments, a scheme rather hard to handle for the two purposes cannot be too intimately connected. He thought, he said, it was about as economical and complete and good looking as the million dollars appropriation would permit, but he felt that an audit was always desirable and he wanted me to go at it rough-shod! Which indicates that he was a modest as well as an able man—a rara avis among architects!

There wasn't a line or a dot I could add nor that I would have been justified in changing, really a superb study. I wish I could give the man's name, I would love to boost him so, for he deserves it. Yes, a self made man, a chap who had to dig and work for the training necessary to develop an exceedingly fine native ability and talent. My hat is off to him. My report was as follows:

"Have again gone over your plans for the ——— Hotel. Of course, if hypercritically inclined, I could suggest doing many things differently. Would they be any better? I doubt it. Indeed, I have nothing but admiration for that work of yours. It shows the most thorough study and, better still, a most intelligent and highly skilled study. Everything has been thought of, not only the convenient and profitable arrangement of rooms, etc., but a splendid foresight in economies of management and all that sort of thing. There isn't a wasted inch of space nor need there be 'lost movements' in the operation of the hotel. And it hasn't been aiming at perfection regardless of cost; that element has been handled as well as all the others.

"Besides doing it all so well and practicably, you have also designed a most artistic and suitable exterior and have a plan that permits of handsome interior effects, symmetrical rooms, pleasant, homelike treatment, really a gem of a building in every respect.

"As a matter of fact, I deem it the best thing that has come to hand this year—or even a much longer period.

"Naturally no one cares to spend money on consultation and matters of that sort for small and unimportant projects, only worth while affairs are submitted to me, and an average of three big buildings a week is my grist, so that it may mean something to you to be the medallist of that galaxy of architectural leaders!

"Good luck to you; you deserve it."

Would that I had to make this a printed form letter because of the number I had to send out, but, alas and alack, there may be two such sets of plans a year, yea, one is nearer the average. And yet what that man did should be the standard of our product, at least that is what most architects claim and so often induce their clients to believe—before building for them.

Now why shouldn't that man receive a higher fee, some reward for giving better service than the others? It isn't done. A personal satisfaction in a task well done will be his and perhaps getting more work through a satisfied client's efforts. But somehow I don't feel it is right that he should have to, so to speak, "compete" with the rank and file of our great and glorious profession.

* * *

Not so long ago a lady, a very wealthy lady, with whom I am slightly acquainted, did me the honor of showing me the plans for her new house by a celebrated architect in New York. It is to be early Colonial and absolutely "true to type." She laid especial stress upon the fact and painstakingly pointed out the steps to me to show that no two rooms would be upon the same level. Where I put my foot in it was in innocently asking if she and her family and her m a i d-servants and he-servitors and trencher-bearers all carried heavy accident insurance, for surely 'twould be only a question of time when one or all of them broke their bloomin' necks or other fragile portions of their anatomy.

Imagine steps at every doorway! Enough to give a fellow the willies just to think of it. The fool craze for abjectly copying something, bungles and all, just because it is old. Our colonists probably added rooms here and there when money was available and as additions came to the family. They made those rooms of different levels because of the lay of their ground and because of their desire or necessity to economize on foundations, or they happened to have lumber in stock of a certain length. I'll bet a hat not one of them ever, in his right mind, made a difference of level with malice aforethought and because he deemed it artistic or desirable. He had some practical reason for it. Wouldn't those old fellows cackle if they could see their misguided descendents painfully measuring and fussing over their every bungle in order to keep the twentieth century palaces "true to type"!

And that is the curse of our American Architecture, everlastingly copying something. We blow about our skill, our originality, our wonderful progressiveness, but when it comes to building we forget the true purpose of art and proceed—almost invariably—to try to copy something two thousand or two hundred years old to do duty for our modern and much changed wants.

F. W. FITZPATRICK,
Consulting Architect.

QUANTITY SURVEYORS

The Quantity Surveyors Association of the San Francisco Bay Cities continues holding weekly meetings—alternately on each side of the bay—for the consideration of the details of organization and the formulating of plans for future work. The interest is increasing as the objects of the organization become more understood by the quantity surveyors in the territory.

The committee having in charge the drafting of a constitution and by-laws has submitted rough drafts and final adoption will be made shortly.

SOCIETY and CLUB MEETINGS

NORTHERN CALIFORNIA CHAPTER

The October meeting of the Northern California Chapter, American Institute of Architects, was held on Thursday, October 18, at 6:30 p. m., in the rooms of the Architectural Club, 523 Pine street, San Francisco. This being the annual meeting reports of all officers and committees were received and officers for the ensuing year were elected.

The September meeting of the Chapter was held in the rooms of the San Francisco Architectural Club Tuesday, September 20, President John Reid Jr., presiding. The following members were present: Messrs.

John Bakewell	Wm. B. Farlow
Chas. F. Maury	Chester H. Miller
Ralph Wyckoff	Chas. F. Masten
Jas. H. Mitchell	Frederick H. Meyer
Henry H. Gutterson	Morris M. Bruce
Wm. I. Garren	Ernest H. Hildebrand
Lester Hurd	John Reid Jr.
James T. Narbett	Albert J. Evers

In the absence of Chairman Bertz, Mr. Gutterson read the report of the exhibition committee covering the exhibition of last May, held at the Museum in Golden Gate Park, San Francisco. The committee reported that 200,000 persons had viewed the exhibit and that there was a small deficit which had been ordered paid by the directors. Moved, seconded and carried that the report be accepted and placed on file and a vote of thanks be tendered the committee. Moved, seconded and carried that a vote of thanks be tendered the trustees of the de Young Memorial Museum and to Mr. George Barron, curator of the museum.

Secretary Evers brought up the matter of group advertising. The question was referred to Standing Committee on Public Information. A letter from the Millwork Institute of California was read and ordered placed on file. A letter from the General Contractors of San Francisco regarding quantity surveys was read and referred to a committee composed of John Bakewell Jr., Wm. I. Garren and Wm. B. Farlow.

Secretary reported the return of $48.77 from the 60th Annual Convention fund.

A proposal to change the Chapter meeting dates to correspond with dates of the State Board of Architecture meetings was brought up by Mr. Bruce. Moved, seconded and carried that the meetings of the Chapter accord with the State Board meetings and that steps be taken to change the by-laws in accordance therewith.

The Honor Award Committee reported that awards were presented to recipients at Temple Emanu-El on Wednesday evening, August 31. Mr. Reid read letters from the Industrial Association officers, expressing their pleasure in co-operating in the honor awards.

Mr. Allen sent in a report, which was read by the secretary, recommending the Chapter activities for next year.

The Nominating Committee, consisting of Morris M. Bruce, Jas. H. Mitchell, G. F. Ashley, John Reid Jr. and Frederick H. Meyer, reported the following nominations:

For president, Harris Allen; vice-president, Henry H. Gutterson; secretary-treasurer, Albert J. Evers; director for unexpired term of Henry H. Gutterson, Earle B. Bertz; directors for three years, John Reid Jr. and Jas. S. Dean; alternate, Jas. Mitchell.

SOUTHERN CALIFORNIA CHAPTER

The September meeting of the Southern California Chapter of the American Institute of Architects was held Tuesday evening in the new offices of Webber, Staunton & Spaulding at 627 S. Carondelet street, Los Angeles. An Italian dinner was served in the large drafting room.

Resolutions of condolence on the death of Arthur B. Benton were adopted. Mr. Benton was one of the founders of Southern California Chapter, A. I. A., and was for many years a Fellow member. Several important matters of business were considered and referred to committees for report at the next meeting.

The members and guests present were: D. C. Allison, D. J. Witmer, Loyall F. Watson, Alex W. Knox, J. L. Putnam, Geo. E. Gable, John Peterson, W. Asa Hudson, S. R. Brandner, Lionel Banks, R. C. Flewelling, C. R. Hite, Reginald D. Johnson, Pierpont Davis, John Keshishyan, H. W. Bishop, Burgo Purcell, S. B. Marston, J. W. McClymont, A. W. Hawes, Chas. S. Cobb, Andrew Sharp, H. F. Withey, H. M. Patterson, H. O. Sexsmith, Robert M. Cassiday, Gilbert S. Underwood, E. J. Borgmeyer, J. T. Zeller, A. C. Weatherhead, C. R. Johnson, K. E. Carpenter, Leslie H. Lippiatt, H. P. Sabin, A. L. Acker, W. D. Cook, Chas. M. Hutchison, Stiles O. Clements, J. E. Allison, Alfred W. Rea, E. H. Cline, Walter Webber, A. R. Monaco, Count Granedigo, Chas. H. Cheney, Wm. F. Staunton Jr., D. R. Wilkinson, Geo. Adams, Cass Gilbert, E. Weston, Lee O. Fuller, W. S. Davis, Donald B. Parkinson, J. E. Stanton, Trent Thomas, H. C. Nickerson, Sumner Hunt, Hugo Ballin.

SOCIETY OF ARCHITECTS

The Society of Architects of Alameda County has elected Chester H. Miller, of Miller & Warnecke, president for the ensuing year, to succeed John J. Donovan, who, with E. Geoffrey Bangs, is elected to the board of directors to serve with W. G. Corlett and Rodger Blaine. Ralph Wastell was elected vice-president, succeeding Chester Miller, and Charles Roeth was elected secretary and treasurer, the office vacated by Ralph Wastell.

The society reports a very successful first year and plans some progressive activities for the next twelve months.

ENGINEERS' CLUB IN NEW QUARTERS

The San Francisco Engineers' Club has moved to new quarters on the two top floors of the Insurance Exchange building, Pine and Sansome streets. The new home offers a splendid view of the bay and increased facilities, including auditorium, lounge, library and card room. The club membership numbers about 500 resident engineers, 200 non-resident and 12 junior members.

The ARCHITECT AND ENGINEER

SINCE 1905

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A Knockout

WE have all heard a lot about that Dempsey knockout. Without going into the merits of the decision, let us have a word about "architectural knockouts." Often you hear an architect say, in referring to a recently completed work: "It's a knockout." By this he means the design is a success—it is modern and beautiful. It's better than the "old stuff."

As in fighting, so in architecture, a knockout is sought for. In fighting, a hit to the jaw is desired, but in architecture it must be a hit to the eye.

Beautiful Architecture

A BEAUTIFUL woman; a beautiful child; a beautiful flower; a beautiful sunset; a beautiful edifice. In the order named these are the five most beautiful things in creation, according to Mr. H. Gordon Selfridge in his address at the recent opening of an exhibition of architectural drawings by students of the Liverpool University School of Architecture, in the Walker Art Gallery, Liverpool. "Besides being beautiful, architecture," he said, "has the advantage of being utilitarian," and added that "a beautiful edifice is one which may have built into its design and stonework the finest points the mind of the artist could conceive." Continuing, Mr. Selfridge brought out a thought uppermost in the minds of many art lovers: "I should like to see the architects of this country (England) banded together to decline commissions for any building inconsistent with those ideals. I sometimes think architects are too anxious to get a commission to refuse bad propositions."

Mr. Selfridge could have broadened his criticism by including a few of our American eyesores. When we look about and see some of the monstrosities that are being erected in the United States we cannot help but agree with the English authority.

Blue Prints For $7.50

THAT the grade is no easy one to make for the ambitious young architect just beginning his career must be admitted, but his handicaps are no worse than those of the beginners in other professions. The physician and the lawyer both have their troubles. It is a problem, therefore, just how the young architect should go about his chosen work. Should he take work for less compensation than his older and more experienced brothers? What chance has he to compete with an architect of recognized ability and experience if his fees are the same?

That there are young fellows in the profession who refuse to cut their fees, business or no business, must be admitted, yet on the other hand, there are a good many who, rather than face bankruptcy, are willing to accept work at ridiculously low prices, just to keep going. We have an instance in the city of Oakland—a flagrant example of cut rate competition.

It is an exceptional case to be sure, and it is for that reason we are giving it so much publicity. In fact it is so flagrant a violation of the ethics of the profession that there seems to be but one remedy (if the future of the profession is to be protected), and that is to urge prompt prosecution by our State Board of Examiners. The Oakland offender made his mistake when he permitted his proposition to get into the hands of a reputable Berkeley architect who promptly forwarded the letter to the editor of this magazine with the comment:

"This letter came to my office today and I thought maybe you could tell me what chance an architect has with this kind of business going on. This is typical of the East Bay district and is one reason the small homes are not better from an architectural standpoint."

The letter, with names of principals omitted, follows:

Dear Sir:

Mr. ——— ———, designer, formerly of ——— ———, has severed connection with that bureau and reopened at the above address and will be pleased to receive your patronage and will at all times guarantee satisfaction in all work.

This plan bureau has been established to be of real service to contractors and save them time and money

in the drawing and designing of plans for their respective clients.

We will design to your own or your client's ideas—all types of buildings costing up to $5000, furnishing you with three sets of blue prints for a total charge of $10. This price includes rough lumber list. Stock specification will be furnished at $1 per copy if required.

Positively no information regarding your work will be given anyone, and your own name will be inserted on the plans.

Larger buildings will be designed for an equal low rate basis.

Will call at your office or home evenings by appointment.

Hoping to be of mutual benefit to each other, we remain sincerely yours to serve you.

P.S. This letter accepted as a 25% deposit on your first order at the new office. Open evenings by appointment.

(Signed) ——— ———.

Can you feature anybody furnishing plans and specifications (three sets of blue prints) of a $5000 house for $7.50?

Worthwhile Things

Old Fogy in the Valve World

EVERY day as I go through the newspapers in the regular course of my work, I keep a keen lookout for what seems to me to be the best bit of news in the day's print. Not the most important, not the most exciting, not the most startling, but the best. And that means, the one which does me the most good, makes me feel the most kindly toward my fellows, adds to my conviction that the march of human kind is steadily upward. And this is the best bit of news for the day of this writing:

During a month's lull in the construction of a large industrial building, to allow the concrete to become seasoned, a pair of robins built their nest on a projecting girder designed to support a large crane. When it was time to resume operations the owner of the building discovered the nest and in it three small, blue eggs. And straightway this owner posted what was probably one of the oddest notices in the history of construction. It read thus:

"Two robins are nesting on the crane girder in the main bay. Any man who intentionally molests them or causes them to leave their nest, can draw his time."

That was three weeks ago, so runs the account in the paper. A week later, while men were carefully removing concrete forms a foot away, the eggs hatched out. Since then ironwork has been installed with especially deadened pneumatic riveters. Strange, threatening feet have come near to the nest, but never touched it. And the two robins, despite all the terrors of their situation, stuck steadfastly on, feeding and rearing their family.

Now and then such bits of news get into the daily papers, offering delicious and refreshing contrasts to the welter of infinitely less worthwhile things that people have been saying and doing; and these bits make the day brighter for me, make my work lighter, cause me to go out and greet my fellows more heartily and love them more and understand them better.

Views and Events

Mono Creek, August 29, 1927.

DATES mean little in the High Sierras save as reminders of when you must go out. But they have to be kept if only for that purpose, and professional correspondents always furnish them.

A vacation should be, quite literally, a vacating of the mind of all ordinary concerns. Business men could attain this, but seem seldom to want to. There must be varieties of professional men to whom it is possible. But how is an architect to come by this salutary liberation of the mind? Go where he will, he is ever confronted by architectural realities or suggestions. I propose no commiseration for him who deliberately takes his vacation in another city. He acts with open eyes. Nor is the summer resort habitue entitled to more sympathy. He should know that all hotels at which he would take pride in being registered—those, in general, which are designated "lodges" or "taverns"—are honeycombed with the most insidious architectural insinuations. But do you really imagine that he can make an effective escape by retiring to the tall timber?—(a purely technical term which, as in the present instance, may cover altitudes so high as to preclude the presence of any timber whatsoever).

Well, there is that artistic conscience of the architect's, which is as stern a Nemisis as the moralist's Conscience with a capital C. Artistic allusions and problems waylay him at every turn—and some of these mountain trails are extremely tortuous. I am not referring to sentiments so simple and naive as joy in flowers and birds and sunsets and moonlights. The up-to-date architect's fancy naturally indulges in less obvious flights. He delights in having unexpected things lead to unforseen results. The attempt to find all-round warmth, for instance, beside a solitary camp fire at ten or eleven

thousand feet may well provoke speculation on the undoubted advantages of Brunnhilde's situation.

But suppose you can actually hold a wayward artistic imagination under the firmest control. Even up here the villian of architecture in particular continues to pursue you. For someone has been along these canyons and ridges ahead of you with a most prolific christening of domes, spires, pinnacles and sundry other "properties" drawn from a dictionary of architecture, all duly consecrated by inclusion in neat type on official maps.

Now why must these most colossal and impressive natural phenomena be belittled under a sentimentally inappropriate nomenclature? In the Old World—Alps and Pyrenees for instance—they trust to the grandeur of the object, calling it simply "peak," "needle," or "tooth." And while I can readily admit that the latter may mar an occasional sensitive dentist's vacation, it has none the less a directness at once vivid and sufficiently abstract. There are the Dents Blanches or the Pic du Midi or the Aiguilles d'Arves. Contrast the deplorable sentimentality of "Cathedral Spires"! Up toward the backbone of the range here we passed a lofty granite mass called plainly Mono Rock. My gratitude went out to the (to me) unknown namer of this promontory. What romantic absurdity of dome, castle or battlement might he not have perpetrated! But there it stands, a monument to somebody's common sense and discretion, plain Mono Rock.

Let it not be supposed that I resent this pseudo-architectural masquerading only because it keeps my mind on a subject I had sought to escape for a time. I dignify my protest with a sound basis of principle. The imputed analogies are false. What real architect conceives of architecture as so much abstract geometrical bulk, disassociated from its methods of building up and going together? A building is a shell of structure enclosing space. It is preposterous to imagine a dome as a solid monolithic mass of material. A dome is architecturally precisely nothing if it have not a void inside it. In fact, in the profoundest sense, is it not the enclosed space that is the essence of the dome? How trivial, then, to fancy a solid mountain as a dome merely because its outer profile is curved; even though, as with Tehipite Dome, the curvature may be remarkably regular on both axes of a perfectly elliptical plan.

In short, despite all the flattering allusions of our artistic-souled explorers, these mountain landmarks are essentially un-architectural. They are sculptural. Not according to that facile current misconception of sculpture which sees in it only modeling in a plastic material, but in the sterner sense of form cut away from the mass. Which, of course, is just the way that most of them came into being.

Perhaps it is just as well that the generation of explorers and travelers who did the naming never thought of it in this light. We might then have had a baroquely-imagined population from the Greek and Biblical mythologies in vogue as the sculptural material of the day. Niobe and Her Daughters instead of the Cathedral Spires! Moses on Sinai for Kern Dome! The Three Fates! The Nine Muses! No, assuredly, romantic sentimentalists could not be entrusted with such dangerous matter. How many could have held themselves to that plain Mono Rock?

I. F. M.

P. S. Perhaps you are less interested in speculation on "fine" art than in some workaday problem of decorative or "applied" art. Then keep your eyes open in the middle foothills coming and going. There, on firmly rounded hills of yellow that ranges through pale straw, ochre, and deep orange, you will see the most varied and engaging patterns of gray and blue and chocolate rocks, black oaks, madder brown manzanita stems crowned with airy sage green, silver buckeye trunks wavering under pompous russet masses, dead shrubs mellowed to lavender and violet. When it is a question of designs for fabrics or wall papers, lay away the sumptuous color plates of "L'Art du Tissu Sous Louis Quelconque" and look here.

ADVERTISING FOR THE ARCHITECT

(Concluded from page 66)

The architect will probably never retain the folder because of the illustrations, as most architects maintain a file of the plates of current work appearing in the architectural magazines.

The foregoing are only a few thoughts. If the advertising manager will put himself in the position of the architect, he will realize that there are many effective methods of preparing this literature which it is not intended will be retained. At the same time, it will accomplish a definite result by impressing upon the architect's mind the name of the product, the extent of its use and the service which it gives.

Communications

SPECIFICATION FOR PORCH FLOOR

Editor The Architect & Engineer:

I will greatly appreciate a specification for a floor material suitable for use on a second floor porch of a frame and stucco residence having a plastered living room ceiling directly beneath. I would like something that is not only safe from leaks, but one that is suitable and presentable as a porch floor material.

I realize this is more easily requested than accomplished. May I state the nature of my attempts and their degree of success. I have tried the usual painted canvas roof, and variations, without much satisfaction. It is unsightly when it buckles and it seems quite readily punctured. I have tried double concrete slabs with compo roof between, but cracks are most difficult to repair if it ever becomes necessary, and it is a greater dead load than is easily taken care of in frame construction. I am wondering if there is any satisfactory way of laying linoleum mopped on over the cap sheet of a built up compo roof. Could the linoleum be replaced, and if so, what sort of base could be used without puncturing the flashing at the floor line? I have also heard of a canvas cap sheet that is mopped on. It is satisfactory?

I thank you most heartily for any suggestion you may make.

Very truly yours,

R. H. A., Architect.

P. S. I neglected to state that the porch is covered, but open on two sides.

While the above letter evidently was not intended for publication, the editor deemed it of sufficient general interest to the profession to warrant printing, together with the answer, the latter being very kindly furnished by Architect James W. Plachek of Berkeley. For obvious reasons the name of the correspondent is withheld. Mr. Plachek suggests the following:

One of the ways of providing a watertight floor on a porch over a living room in a frame building, is to first lay a T and G redwood floor over the joists with painted joints. Over the flooring lay a 1 ply Malthoid roofing paper. This paper should be turned up as flashing along all walls. Over this Malthoid roofing paper lay a finished T and G pine floor which should be sanded after it is laid. Next lay a heavy grade good quality linoleum with waterproof paste cemented to a felt which should be laid over T and G sanitary cove base cemented with waterproof paste. The best way to accomplish a real waterproof job where an outdoor porch has a roof is to provide, in addition to the system mentioned, windows that can be closed when it rains.

APPROVES MULLGARDT'S CRITICISM

Editor The Architect and Engineer:

Mr. Mullgardt's comments on the A. I. A. convention in your September number were great. It is a bully good paper. It takes a Californian to show grit enough to take issue with the "mighty six" who represent the brains, the snap, the will, the art, everything of the great A. I. A. I wouldn't want a word changed in that paper; it has my absolute and whole-hearted commendation and approval!

A fellow who can't design—I mean DESIGN—should follow copy—something good that has been done and let it go at that. He should have close association with landscape architects, sculptors, artists-painters, anyone who can better his product (albeit at heart I think he'd do better still if he'd hitch up to a good consulting-architect). But a real architect needs no such help in laying out his work and its accessories * * *. The finest gardens I know of were laid out by an architect who designed them with his architecture as a proper setting for the latter. And he doesn't know one flower or tree from another—doesn't want to, the detail would but hamper him. But he knows color and masses and what he wants, so lays out his scheme, then leaves it to an expert gardener to supply the detail, to know what grows best here and there and all that, in conformity with the general scheme, just as he leaves his locksmith and plumbing expert do the detail of their work—under his general direction. His real task is to pick such subordinates or helpers who will give him real service.

Mullgardt's writing is as good as his architecture, and both are most helpful to the fellows who have sense enough to appreciate worthwhile things.

Sincerely, F. W. FITZPATRICK.

DENVER ARCHITECT BUSY

Editor The Architect and Engineer:

This office is busy remodeling the Palm Theater for the Colorado Realty Co., at Pueblo; has completed plans for the Capitol Theater of Denver; has the Berkeley Theater of Denver nearly completed; two other fairly elaborate neighborhood theaters will be begun probably before January 1 by this office.

Our theater business has increased to such proportions as to cause us to consider it as a specialty. We have lost out on the original planning of much of the larger work, but the opportunity to make corrections usually comes to us, even upon the work lost.

Your magazine is much improved and we are surprised to see such results from the Pacific seaboard. However, with several "million" or more cities, why should this not be the case? More power to you.

Very truly yours,

L. A. DESJARDINS, Denver, Colo.

A WORTHWHILE MAGAZINE

Editor The Architect and Engineer,

Herewith $3.00 for subscription, September 1927 to 1928. I consider The Architect and Engineer the most worthwhile of any of the architectural magazines. It is so interesting and live that my wife reads it the same as I do. Yours,

H. L. BOOTH, Architect.

Beverly Hills, California.

COMPARISON OF COSTS

An interesting comparison of costs of erecting a bungalow in brick and other materials is reported in the monthly digest of conditions in the brick industry, issued by the Common Brick Manufacturers' Association for August. Dealers in various materials in Denver formed a committee and requested the Architects' Small House Service Bureau to conduct the investigation. The digest says:

> "A typical bungalow 25 feet by 35 feet in size, containing five rooms and a bath, was used for investigation. The final result showed that the solid wall brick house, using a good quality of exterior brick, cost $107 more than the same house built in wood frame."

A COMPLETED CONTRACT

"How's this?" asked the lawyer of the contractor. "You've named six material dealers in your will to be pallbearers. Would you not rather choose some of your friends with whom you are on better terms?"

"No, Judge, that's all right. Those fellows have carried me so long that they might as well finish the job."

WITH *the* ARCHITECTS

NEW PALO ALTO BUILDINGS

The City of Palo Alto is enjoying a building boom with many substantial business structures as features of recent building activity. Architect Birge M. Clark has recently completed plans for a $200,000 post office building, stores, and professional offices. He has also drawn plans and awarded the contract for a store building on Ramona street for Adolph Richter. A five-story apartment building has just been started at Gilman street and Forest avenue, for William Staller. The archtect is J. C. Hladik and the estimated cost is $200,000.

TO DESIGN CONVENT BUILDINGS

Architect John J. Donovan has been commissioned to prepare plans for a group of convent buildings to be built on the old Stanford estate at Warm Springs, Santa Clara County, for the College of Holy Name. Upon completion of these buildings the college will move from its present location near Lake Merritt. Mr. Donovan's scheme calls for an expenditure of $1,500,000, the group to include administration, academic and science buildings, chapel, gymnasium and library.

SAN JOSE HOTEL

Architects Binder & Curtis of San Jose, have awarded contracts for the construction of a two-story and basement steel frame and concrete hotel on South First street, for the Renzel estate, building to cost $84,000. The same architects have completed plans and have taken bids for the new Builders Exchange and a two-story shop building on Third street, between San Fernando and San Antonio streets, San Jose, for Frank Gummer. The same architects are busy on plans for residences costing $6500 to $20,000 each.

THIRTY-FOUR STORY OFFICE BUILDING

San Francisco is going to have another skyscraper as tall if not taller than the recently completed Russ building. It is to occupy the site of the old Temple Emanu-El on Sutter street, between Powell and Stockton streets. Architects Miller & Pflueger are working on preliminary drawings for a Class A physicians' and dentists' office building of from thirty to thirty-four stories. The project is now in process of financing and leasing. About $3,000,000 will be expended on the improvement.

$400,000 LOFT BUILDING

Architects Bliss & Fairweather are completing plans for a six-story Class B reinforced concrete loft building to be built on Howard street, near Beale, San Francisco, for the Butler Company of Chicago. T. Ronneberg, is the structural engineer. Building is estimated to cost $400,000.

A CORRECTION

Through a typographical error the Raymond Granite Company advertisement in the September Architect and Engineer stated that Raymond granite was used in the San Francisco City Hall, instead of on the Los Angeles City Hall.

RETURNS FROM AUSTRALIA

W. H. Hillier, associate of the Royal Victorian Institute of Architects and member of the architectural firm of Allen & Hillier, has returned to Los Angeles from a business trip to Australia. While there Mr. Hillier designed and erected several large theaters, as well as numerous other commercial buildings about Melbourne and vicinity. Two of his designs were awarded special prizes in the recent architectural competition for Federal buildings at the Australian capital, "Canberra," which buildings are being erected by the government at a cost in excess of ten million dollars. Mr. Hillier's design for the Melbourne public library was awarded second place, and his most recent award was made in connection with the competition for the Australian National War Memorial at Villers Brettoneaux, France.

ARCHITECTS DESERVE CREDIT

When loyalty, unquestioned ability and honest endeavor are thrown away by an employer, without stated reasons therefore, other employers and other employees, alike, register disapproval. Therefore it is not to be wondered that the press and public opinion denounce the summary ousting of Bebb & Gould, A. I. A., as the architects for the University of Washington.

Bebb & Gould have built a monument to the architectural profession on the U. of W. campus. The quality of their work never has been questioned by architects or the public; their fees have been well within the limits set by A. I. A. standards. They have been loyal to their purpose, their ability is patent, their honesty in the execution of their work without a blemish.—Pacific Builder and Engineer.

ARCHITECT'S WIDOW SUES

Suit for $100,000 for the death of her husband has been filed in Stockton by Rose Heller against Fay Leige, Sam Raffails and Clarence Kennedy. Mrs. Heller alleges that Leige and Raffails carelessly left a truck projecting into North Wilson way on the night of August 6, and that Kennedy, who was driving the car in which Architect Heller was seated, drove into it negligently. Heller died from injuries received in the accident.

ADDITIONS TO MASONIC HOME

Contracts have been awarded for the construction of additional wings to the Masonic Home at Decoto, Alameda County. The plans were prepared by Architects William Mooser & Son and Edward G. Bolles, associated. The general construction has been awarded to R. W. Littlefield, for approximately $140,000.

TWO FACTORY BUILDINGS

Architect Leonard H. Ford, of Oakland, has recently completed plans for two factories, one to be erected in San Francisco, and the other at 30th and West streets, Oakland. The Oakland building is owned by Meyer Leson and will cost $12,000.

WASHINGTON STATE CHAPTER

Members of the Washington State Chapter were given a dinner September 29 by the West Coast Lumber Trade Extension Bureau. There was a large turn out and a most enjoyable evening was passed.

The architectural exhibition has been in full swing this month and a fine collection of photographs was assembled for honor award judgment. The awards will be published probably in the December Architect and Engineer. All of the large Coast cities have held honor awards now with the exception of Portland. The chapter there should get busy.

Two names have recently been added to the membership roll of the Washington Chapter. They are Lancelot E. Gowen and Arthur P. Herrman. Mr. Gowen and Mr. Herrman have been for several years associate members of the chapter and are assistant professors in the Architectural Department of the University of Washington.

NEW LANE HOSPITAL

Architects Bakewell & Brown, of San Francisco, have been commissioned to prepare preliminary drawings for a new Lane Hospital to cover the block bounded by Sacramento, Clay, Buchanan and Webster streets, San Francisco. With the exception of the Stanford wing, erected about eight years ago, the other buildings are antiquated and will be razed to make room for new structures. It is planned to spend more than a million dollars on the improvements.

AUDITORIUM AND HOTEL

Working drawings are being made by Architect Lewis P. Hobart for a twenty-three story Class A hotel and thirteen story annex to be built on the northwest corner McAllister and Leavenworth streets, San Francisco, for the Methodist Book Concern. The annex will be arranged as an auditorium for religious purposes. From $3,000,000 to $4,000,000 will be expended on the buildings.

PIEDMONT BATHS, OAKLAND

It is likely that construction will start soon on the new Piedmont Baths to replace the building recently destroyed by fire. The burned structure was more or less of a fire trap and from an architectural standpoint was an eyesore to the section in which it stood. Undoubtedly a fine new bathing pavilion will be constructed.

DESIGNING STATE BUILDINGS

Dean and Dean, architects, California State Life building, Sacramento, are preparing plans for three brick and concrete buildings, a school, custodial building and receiving hospital, costing $300,000, to be erected at the Preston School of Industry, Ione, for the State of California.

OAKLAND CHURCH

Architect Rolin S. Tuttle, 363 17th street, Oakland, has completed plans for the first unit of a new church for the Eighth avenue M. E. Society. Mr. Tuttle has also completed drawings for a new edifice for the Santa Clara M. E. Church at Alameda, to cost $35,000.

NEW LOCATION

The Robert W. Hunt Company, engineers, inspection and tests, Chicago, wish to announce that the location of their Birmingham office is now in the Bankers Bond building, Birmingham, Alabama.

PERSONALS

WARREN H. McBRYDE, who for the past eight years has been associated with the California-Hawaiian Sugar Refining Corporation, most of the time having served as secretary, has resigned to re-enter the engineering profession with an office in San Francisco. Mr. McBryde is a graduate in electrical and mechanical engineering and for many years actively followed that profession.

ARCHITECT SMITH O'BRIEN has returned from his trip abroad and has reopened his office in the Bankers' Investment building, 49 Geary street, San Francisco. Mr. O'Brien spent nearly seven months in Europe, occupying himself chiefly with the study of architecture and painting. He returned by way of the Panama Canal.

ARTHUR C. LEBRUN and associates, building designers, have moved from 407 Palmer building to 1223 Guaranty building, Hollywood.

H. C. AARENS, formerly of Illinois and holding a certificate to practice architecture in that state, has opened an office at 1606 Cosmo street, Hollywood, and desires catalogs and samples of materials.

PAUL BAILEY, California state engineer, recently resigned to accept an appointment as chief engineer for the Orange County Flood Control District, for which he will plan and supervise the construction of about $10,000,000 worth of flood control and water conservation works on the Santa Ana river.

The firm of SOMERVELL & PUTNAM, Los Angeles architects, has been dissolved by mutual consent. Marbury Somervell has opened offices at 801 Commercial Exchange building.

LOUIS W. SIMONSON, architect, has moved to 1735 San Bruno avenue, San Francisco, care of the Meda Art Tile Co.

JOHN VAN DER LINDEN, architect of Berkeley, has removed to 3573 Foothill boulevard, Oakland.

The firm name of WYTHE, BLAINE & OLSON has been changed to Blaine & Olson, architects, 1755 Broadway, Oakland.

EDWARD OSCAR BLODGETT, architect, is now at 824 Everett avenue, Oakland.

CASEBOLT DAKIN, architect of Berkeley, has moved to 2085 Harrison boulevard, Oakland.

WM. H. WEEKS has moved his Oakland office to the California building.

The firm name is now MAYO, BISSELL & COMPANY, architects, 21 South San Joaquin street, Stockton.

A. R. WIDDOWSON, architect, has moved to 1360 44th street, Sacramento.

EDWARD W. ROBERTS, construction engineer with U. S. Post Office building, San Francisco, has removed to the U. S. Post Office building, Red Bluff, Tehama County.

JOHN M. COOPER CO., architects have moved to 301 Rives-Strong building, Los Angeles.

Firm name is now CRAMER & WISE, architects, 124 West Fourth street, room 567, Los Angeles.

ARCHIBALD DWIGHT GIBBS, architect of Altadena, has moved to 1110 Fine Arts building, 811 West Seventh street, Los Angeles.

RAY F. RAYBOLD, architect, has moved to 1241½ South Ardmore avenue, Los Angeles.

EVERETT T. BABCOCK, architect, has moved to 855 Rosalind road, Pasadena.

Firm name is now MARSTON & MAYBURY, architects, 29 South Euclid avenue, Pasadena.

HARRISON B. TRAVER is now senior member of the firm of Traver & Jacobs, architects, 6778 Hollywood boulevard, Hollywood.

RALPH S. LORING, architect, has moved to 1570 Circle drive, Pasadena.

WILLIAMS & WASTELL, architects, announce the opening of new offices in the recently completed Kittrelle building, 374 Seventeenth street, Oakland. The new phone number is Glencourt 5497.

NOTES OF LANDSCAPE ARCHITECTS

Stephen Child of San Francisco, president of the Pacific Coast Chapter of the American Society of Landscape Architects, in connection with his work in Arizona, is preparing plans for the 160 acre tract adjoining the Tucson Country Club and owned by the Tucson Country Club trust. The property is to be developed for high class residential purposes, with contour roads and one acre the minimum size of lot, and $10,000 the minimum cost of homes.

UNIVERSITY OF CALIFORNIA BUILDINGS

Bids are about to be taken by the regents of the University of California for the proposed new life sciences building and the Bowles dormitory for men. Plans for both structures have been completed by Architect George W. Kelham.

SKATING RINK AND PAVILION

Preliminary plans have been prepared by Architect S. Heiman, of San Francisco, for a Class A ice skating rink, horse show auditorium and fight pavilion for Willie Ritchie and associates. The location is in the Mission District, San Francisco.

FOUR STORY APARTMENTS

The Walter King Company, Call building, San Francisco, has awarded a contract for the construction of a four-story reinforced concrete apartment building to be erected on Mission street and San Jose avenue, Daly City, at a cost of $50,000.

REDLANDS HOSPITAL

Architects Myron Hunt and H. C. Chambers, of Los Angeles, are preparing plans for a new building for the Redlands Community Hospital Corporation. It will have accommodations for forty patients and will cost $150,000.

COMPLETING SCHOOL PLANS

Architects Austin & Ashley, Chamber of Commerce building, Los Angeles, are completing plans for a group of high school buildings at Monrovia, for the Monrovia-Arcadia-Duarte High School District, to cost $500,000.

THREE RICHMOND DWELLINGS

Architect Ernest Flores, 814 Chanslor avenue, Richmond, has completed plans for three $4000 dwellings to be built in Richmond for W. B. Thurman.

ARTHUR B. BENTON

Arthur B. Benton, one of the best known architects in Southern California, passed away at his home in Los Angeles, September 18, aged 70 years. Mr. Benton practiced architecture for forty years and designed many buildings in Southern California in addition to extensive restoration work on the old California missions.

Mr. Benton won a reputation as an authority on California Mission architecture and was an active participant in a state wide movement for the preservation of these historic landmarks. He was best known, perhaps for his work on the Riverside Mission Inn, a part of which is a replica of one of the noted missions. He made the original plans for the permanent Mission playhouse at San Gabriel which was recently completed. He was the architect for the Clark Memorial home on Loma drive in Los Angeles, the central Y. M. C. A. building in Los Angeles and the Y. W. C. A. building on Hill street, later converted into a hotel. For many years he maintained an office on Spring street just north of First, but following the war he purchased a fine old residence on a site extending through from Sunset boulevard to Kensington road and remodeled it for an office and studio, which was shared by W. A. Sharp.

Mr. Benton was a Fellow of the American Institute of Architects and past president of Southern California Chapter of the Institute. He was also a member of the Municipal Art Commission of Los Angeles, a member of the board of governors of the Los Angeles County Art Museum, member of Southern California Academy of Science, the Landmarks and the Old Colony Clubs.

He was born in Peoria, Illinois, and attended school in that city. When a young man he went to Topeka, Kansas, where he received his first architectural training in the architectural department of the Santa Fe Railway Company.

PIEDMONT MAUSOLEUM

Plans have been completed by Architects Weeks & Day, San Francisco, for the first unit of a reinforced concrete and granite mausoleum for the Mountain View Cemetery Association at Piedmont. This unit will cost $240,000.

COMPETITIONS

STOCK EXCHANGE BUILDING

Plans are being formulated for a competition among a selected list of San Francisco architects for plans for a monumental home for the San Francisco Stock & Bond Exchange. The exchange has outgrown its present building on Montgomery street, near California, and the structure is to be razed to make room for a new home. The Board of Governors of the Stock Exchange, Sidney Schwartz, president, is in favor of conducting a competition to be under the rules of the Northern California Chapter, A. I. A., the latter to appoint an architectural advisor and prepare a suitable program. The Exchange will spend $500,000 on the building.

The MONTH'S MAGAZINES
Edited by Irving K. Morrow—Architect

THE AMERICAN ARCHITECT
August 20, 1927

TEXT

Theatre Planning—Here and There. By *Arthur Woltersdorf.*

Beaune, Burgundy, and La Bresse. By *Samuel Chamberlain.* (With sketches by the author.)

Chinese Theatre at Hollywood, California. *Meyer & Holler, Architects and Engineers.*

Lighting the Shop Window. By *John A. Hoeveler.*

Asbestos Curtain Fire Test.

PLATES

Recent German Theatres (14 plates, photographs, plans and sections).

Chinese Theatre, Hollywood, California. *Meyer & Holler, Architects.* (9 plates, photographs, plan and section.)

Wood Paneling (4 plates in supplement).

THE AMERICAN ARCHITECT
September 5, 1927

TEXT

The End of the Windmill. By *Gerald K. Geerlings.*

Some recent architecture in Holland—not the most characteristic.

An Architectural Competition for the Use of West Coast Woods in Home Construction. Article by *J. Lister Holmes* and Report of Jury.

Heating the House With Oil. By *Harry F. Tapp.*

PLATES

Downtown Branch Y. M. C. A. Building, St. Louis, Mo. *La Beaume & Klein, Architects.* (8 plates and plans.)

West Coast Woods House Competition. (Designs of 2 prizes and 10 mentions).

Royal Building for Royal Insurance Co., New York. *Starrett & Van Vleck, Architects.* (4 plates and plans.)

Italian Wrought Iron Lanterns. (4 plates in supplement.)

THE ARCHITECT
September, 1927

TEXT

More Leaves from Henry's Diary. Transcribed by *George S. Chappell.*

The Chaliapin Hunting Lodge near Biarritz, France. *N. Vassilieve, Architect.*

Some Phases of a Big Noise. By *William L. Steele.*

Extras—The Rights and Liabilities of Architects. By *Nathan Young.*

PLATES

War Memorial to Soldiers and Sailors, Providence, R. I. *Competitive designs by Paul P. Cret* (winner); *J. H. Freedlander;* and *Office of John Russell Pope.* (1 plate each.)

Studies of Hunting Lodge for Mr. F. Chaliapin, near Biarritz, France. *N. Vassilieve, Architect.* (2 plates and plan.)

Royal Italian Embassy, Washington, D. C. *Warren & Wetmore, Architects.* (3 plates.)

House, Mr. Moses Taylor, Newport, R. I. *Office of John Russell Pope, Architect.* (6 plates.)

Academy of Medicine, New York. *York & Sawyer, Architects.* (2 plates.)

House, Mr. Penrose V. Stout, Bronxville, N. Y. *Penrose V. Stout, Architect.* (6 plates and plan.)

House, Mr. William E. Cate, Long Branch, N. J. *Charles S. Keefe, Architect.* (2 plates and plans.)

House, Mr. F. A. Schaff, Bronxville, N. Y. *Lewis Bowman, Architect.* (9 plates and plans.)

THE ARCHITECTURAL FORUM
September, 1927

Public Buildings Reference Number—Part II

TEXT

The Designing of Auditoriums. By *R. H. Hunt.*

Accoustics in the Design of Auditoriums. By *Vern O. Knudson.*

A very good paper on elementary principles, actually recognizing the possibility of a desire to pursue the subject by including a bibliography!

The Building Program of the Government. By *Oscar Wenderoth.*

Planning Community Buildings. By *Ralph C. Henry.*

The Designing of Public Baths. By *O. J. Gette.*

The Architecture of Public Water Works. By *Kenneth Kingsley Stowell.*

The Public Comfort Station. By *A. R. McGonegal.*

PLATES

Thirty-two plates of recent Auditoriums, Post Offices, Community Buildings, Public Baths, Water Works and Comfort Stations from all parts of the country.

THE ARCHITECTURAL RECORD
September, 1927

TEXT

The Graybar Building, New York, Sloan & Robertson, Architects. By *S. J. Vickers.*

Moor's End, Nantucket, Mass. By *Fiske Kimball, Architect.*

The Morris County Court House, Morristown, N. J. By *Harold Donaldson Eberlein.*

Architects Are Still Important. By *Thomas S. Holden.*

So say we all of us.

PLATES

House, Mr. C. A. Moore, Greenwich, Conn. *Henry W. Rowe, Architect.* (7 photographs.)

House, Mr. W. F. Stubner, Long Island, N. Y. *F. Albert Hunt* and *Edward Kline, Architects.* (2 plates.)

House, Mr. E. J. Seaman, Long Island, N. Y. *Peabody, Wilson & Brown, Architects.* (2 plates.)

House, Mr. Earl Stanza, St. Louis, Mo. *T. P. Barnett Co., Architects.* (2 plates and plans.)

Field Office, Beach Park Co., Tampa, Fla. *Franklin O. Adams, Architect, Jefferson M. Hamilton, Associate.* (1 plate and plan.)

Building for Insurance Company of North America, Philadelphia, Pa. *Stewardson & Page, Architects.* (8 photographs and plans.)

ARCHITECTURE
September, 1927

TEXT

A Museum at Le Mans. By *Lucian E. Smith* and *Harry E. Warren.*

Adam Ceilings. By *Gerald K. Geerlings* (with color plate).

Goodness, gracious! Here we have been imagining that all our exquisite white, cream and gray Adam ceilings were absolutely authentic; and now comes word that we have been admiring something wrong all the time—the originals were polychrome! Doing correct architecture is surely a perilous undertaking, and fraught with many humiliations.

An Architect's Pilgrimage into French Canada. By *Edwin Laclede Howard.*

Effective Decorative Treatment of Concrete with Paint and Stain. By *Joseph B. Mason.*

Giving Painted Wood an Aged Finish.

Collaboration Between Draftsman and Craftsmen. By *John Taylor Boyd, Jr.*

PLATES

Apartment, Mrs. C. R. Holmes, New York. *Williams and Barratt, Architects.* (11 photographs and plans.)

Jefferson Avenue Presbyterian Church, Detroit, Mich. *Smith, Hinchman & Grylis, Architects.* (8 photographs and plans.)

House, Mrs. Charles Lichti, Mt. Vernon, New York. *S. A. Guttenberg, Architect.* (2 plates and plans.)

Wychwood, Wallingford, Pa. *Davis, Dunlap & Barney, Architects.* (7 photographs and plans.)

Portfolio of Palladian Motives (30 photographs).

JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

September, 1927

The Evolution of Gloucester Cathedral. By *Stewart F. Campbell.*

Mount Pleasant Mansion. By *W. M. Horner Jr.*

Champs Elysées to Lose Historic Home. Letter from *G. F. Sebille.*

LANDSCAPE ARCHITECTURE

July, 1927

Palos Verdes Estates. By *Frederick Law Olmsted.*

The development of this project should be instructive. There has probably never been an attempt at such complete aesthetic regulation on so extensive a scale. Can it contrive to evade the stagnation and sterility inherent in the principle of censorship? The price of healthy life is the danger of making mistakes. It will be interesting to see if, when we shall have achieved a living art, this community can become an integral factor in a developing artistic life, or if it is destined to settle down into a futile backwash devoted to maintaining an illusory past. A summary of the principal provisions of the Palos Verdes Restrictions follows the article.

The Design of Playgrounds in Small Parks. By *Robert Wheelwright.*

It is heartening to hear American landscape designers urged out of the rut of winding paths and English countryside pictures.

Good Herbaceous Peonies. By *Florence B. Robinson.*

Notes with Reference to Contracts and Specifications. By *Albert D. Taylor.*

PACIFIC COAST ARCHITECT

September, 1927

TEXT

Adventures in Architecture. By *Harris Allen.*

The Philosophy of the Fireplace. By *Zoe A. Battu.*

Simplified Short Form Building Code Urged. By *Mark C. Cohn.*

The Decorative Use of Iron. By *Harris Allen.*

PLATES

Buildings by Wallace Neff, Architect.

California Security Loan Corporation, Pasadena, Calif. (3 plates).

St. Elizabeth's Church, Altadena, Calif. (2 plates).

House, Mr. Fred C. Thomson, Beverly Hills, Calif. (9 plates).

House, Mr. Norman Chandler, Los Angeles (1 plate).

House, Mr. E. L. Petitfils, Los Angeles (3 plates).

House, Mr. J. C. Anderson, Beverly Hills, Calif. (5 plates).

House, Mr. Stephen S. Vavra, Bel Air, Calif. (1 plate).

House, Mrs. Charlotte Pickford, Beverly Hills, Calif. (1 plate).

PENCIL POINTS

September, 1927

TEXT

The Drawings of Bob Fink. By *John L. Skinner.*

Architecture in Motion Pictures. By *Harold Miles.*

A most intriguing title, but unfortunately a misnomer. It should have been, Design and Execution of Motion Picture Sets. Mr. Miles feels that, because of the temporary nature of these sets, experimentation in architectural design is rendered more practicable than with real building, and that "it may not be too much to expect motion pictures to be the advance guard of those who are trying to do new things . . ." Anybody who can indulge such a hope in the face of the imaginative impotence of American films must be an incorrigible optimist.

A Building on the Board.

Architecture—The Sick Profession. By *Charles Kyson.*

Competition for the 20th Paris Prize of the Society of Beaux-Arts Architects.

Architectural Specifications. By *Edward M. Bridge.*

PLATES

Drawings in various media, including two in color.

THE WESTERN ARCHITECT

August, 1927

TEXT

Glencoe's School Building Program. By *Walter R. McCormack.*

Bank Buildings—Past, Present and Possible Future. By *Arthur T. North.*

A Public Lesson in the Stone Mountain Fiasco.

Eureka Junior High School. By *John J. Donovan, Architect.*

Color in Architecture—VII. Color Media, 2. By *Rexford Newcomb.*

Comment—Architectonic, Mostly. By *F. W. Fitzpatrick.*

Mr. Fitzpatrick quotes a Paris comment jubilantly reporting that electrolysis has doomed the Eiffel Tower, and himself gloats over an impending demolition. "A discordant note in a beautiful symphony," he styles it. Well, the history of harmony is the record of acceptance of combinations previously deemed discordant. And even symphonic material evolves; was not Franck berated for the impropriety of introducing an English horn into a symphony? Strange that an architect of Mr. Fitzpatrick's vaunted independence and progressiveness should be immune to the grace and significance of this remarkable structure! Well, gentlemen, since you have decided it is to go, with what shall we replace it when the funeral festivities are over—an obelisk, or a Doric column bearing a heroic statue of the Republic?

PLATES

Madison School, Santa Monica, Calif. *F. D. Rutherford, Architect.* (2 plates and plans.)

Public School, Anchorage, Ky. *Ossian P. Ward, Architect.* (3 plates and plans.)

Junior High School, Eureka, Calif. *John J. Donovan, Architect.* (4 plates and plans.)

Benjamin Bosse High School, Evansville, Ind. *Joseph C. Llewellyn Co., Architects; Charles L. Troutman, Associate.* (3 plates and plans.)

PLAN NEW CLUBHOUSE

The Architects' and Engineers' Club of Sacramento plan the erection of a modern clubhouse on the American or Sacramento rivers. A prize will be awarded to the architect submitting the best set of plans for the structure. The designs are required to provide a large clubroom, committee room, dressing rooms, a screened porch and kitchen. C. E. Berg is chairman of the location committee.

PACIFIC GROVE BUILDING

Architect George Rushforth, 354 Pine street, San Francisco, is preparing plans for alterations and additions to the S. S. Parsons store and office at Pacific Grove.

ARCHITECT'S IDEAS ABOUT PLANS

The following appeared recently in a Santa Barbara paper:

William Mooser, architect of the Santa Barbara courthouse, employed San Francisco police to eject from his office an unwelcome seeker for plans and specifications on the Santa Barbara county public buildings, according to a report made by the architect to the supervisors.

The story was brought to light by a letter from the National Surety Company of Los Angeles to the Board of Supervisors, asking that Mr. Mooser be forced to supply the company with plans and specifications on the courthouse work and complaining of uncourteous treatment given the company's representative in Mooser's San Francisco office.

The Surety company said that its agent was seeking plans and specifications for the convenience of the company's clients who were prospective bidders on courthouse work.

According to Mr. Mooser, the Surety company agent was seeking the plans and specifications not for the purpose of bidding or getting bids, but for the purpose of soliciting business for the Surety company by offering bonds to contractors who might bid on the work.

Plans and specifications such as the Surety company ask, cost Mr. Mooser $50.00 or more a set, according to his statement to the board, and there is nothing in his contract to force him to deliver sets of plans to any but legitimate bidders on courthouse work.

The board of supervisors ordered the county clerk to write to the Surety company and state that the courthouse architect is not called upon to deliver plans and specifications with or without deposit for return, to any but legitimate bidders on courthouse work.

Shown the above article, Mr. Mooser said: "Between insurance companies and builders' supply houses an architect today would be broke if he had to furnish them all with plans and specifications. My experience with contractors in general, with some exceptions, has been pretty bad. They take out plans and specifications and when returned many of them are unfit to be used again. Contractors think nothing of tearing out sheets of specifications, writing on them, etc., and the same with plans. I simply refuse to be bulldosed or intimidated into giving out plans to surety companies, supply houses and some contractors."

A TRIBUTE TO WILLIS POLK

(Southwest Builder and Contractor)

A live oak tree, grown from an acorn planted thirty-five years ago by John McLaren, superintendent of Golden Gate Park, was planted in the park and dedicated as a memorial to the late Willis Polk, noted architect of San Francisco, Sept. 22, by the Garden Club of San Francisco. A memorial plaque imbedded in concrete will be placed at the base of the tree which stands in the court of memory. It is gratifying to know that the work of Willis Polk is appreciated after he has gone from the city for which he did so much in an architectural way. While his genius was recognized by critics during his life time, many persons allowed their judgment of his work to be warped by his personal eccentricities and temperament. But there can be no doubt of his mission and his achievements. He came to San Francisco inspired by the wonderful architectural opportunities which that city presented and in the development of which he took no small part. Unconsciously, perhaps, but without peradventure, his fellow members of the profession absorbed some of his enthusiasm and caught some of his inspiration, for San Francisco today is a near-fulfillment of his dreams of a great and beautiful city.

STATE BUILDING PROGRAM

The preparation of plans for new California State buildings by the State Department of Architecture, George B. Mc Dougall, Forum building, Sacramento, has been authorized as follows:

Cottages at Stockton State hospital	$250,000
Ward buildings at Norwalk	175,000
New cell building at San Quentin	260,000
Ward building at Patton	90,000
Remodeling building at State hospital, Ukiah	40,000
Dormitories at Pacific Colony, near Pomona	90,000
Additional barns at State Fair Grounds, Sacramento	13,500
Laundry at Ventura School for Girls	18,000
Repairs to Women's Relief Home	7,000
Kindergarten building at San Francisco State College	15,000
Training school units at San Francisco College	180,000
Home Economics and Science building, Santa Barbara	175,000
Dormitory, dining hall, president's home, garage, and new mechanical units at Polytechnic school, San Francisco	100,000
New cell tier at Folsom State Prison	153,000
Gymnasium at Humboldt College	40,000
New barracks at Veteran's Home, Yountville	170,000
New buildings at Fresno State College	215,000
New hospital building at Sonoma State Home	150,000
Hospital and classroom buildings at Preston school	140,000
Industrial building at Stockton hospital	25,000
Assembly hall at Norwalk	75,000
Administration building and hospital at Whittier	85,000
Tubercular hospital, Folsom	70,000
Hospital extensions at San Quentin	75,000
Addition to Chico College	75,000
New gymnasium at Pacific Colony	35,000
Training building at San Jose Teachers College	100,000
Dormitory at California School for Blind, Berkeley	75,000
Kitchen and bakery at Patton hospital	120,000
Cottages at Folsom State Prison	22,500
Attendant's buildings at Mendocino Hospital	90,000
Attendant's quarters at Napa hospital	40,000
Nurses' home at Norwalk	26,000
Employees building at Pacific Colony	55,000
Employees cottage at Sonoma Home	40,000
Physician's cottage at Agnew hospital	20,000
Cottages for assistant physicians at Mendocino Napa and Stockton hospitals	60,000

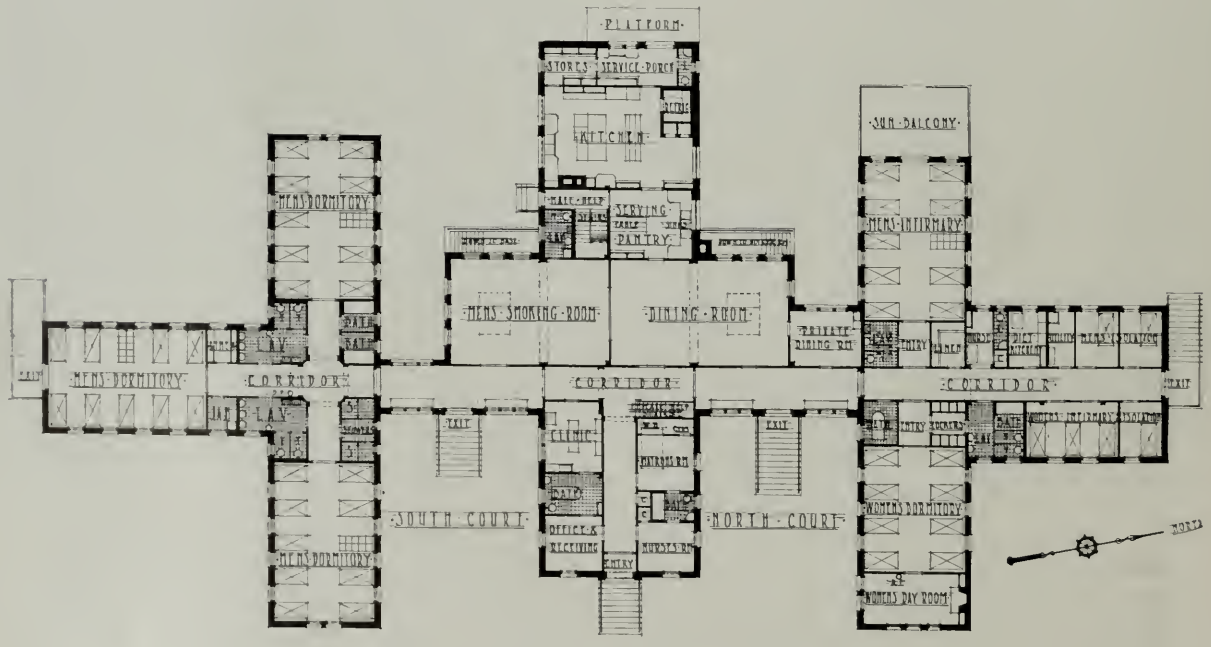
All of the above buildings are to be erected during the present administration of Governor Young, being for a period of two years. During the first year, the structures built will be those most urgently needed, such as hospitals, and additional prison facilities. The total amount to be expended is approximately $4,687,000.

BANK AND OFFICE BUILDING

Architects Dodd & Richards, Brack-Shops building, Los Angeles, have completed plans for a $400,000 six-story Class A bank and office building to be erected on the southwest corner of Brand boulevard and Broadway, Glendale, for the Los Angeles First National Trust and Savings Bank.

SKETCH FOR SAN MATEO COUNTY RELIEF HOME

Will H. Toepke, Architect



PLAN, SAN MATEO COUNTY RELIEF HOME

Will H. Toepke, Architect

LITTLE CIRCULATION, NICE PICTURES, LOTS OF ADVERTISING

There are so-called architects' books published in California from time to time, or whenever sufficient advertising is obtained by the promoters to make them pay, which would seem to fall in the same category as certain publications which have aroused the ire of the architects of Chicago. In a recent Bulletin of the Illinois Society of Architects, we read:

The attention of members of the Illinois Society of Architects is directed to the fact that certain advertising solicitors have been making and are making a systematic canvass of architects' offices, requesting that they be given permission to get out a book separately illustrating each architect's work.

These solicitors offer to supply the architects, free of charge, with 500 or more volumes of a book, illustrating their work, which they propose to get out and pay the expenses of publication, providing only that the architect shall furnish them with photographs of buildings executed by him, together with a list of the material men and contractors whose material and construction work was employed in the buildings to be illustrated.

The Board of Directors of the Society wishes to direct the attention of its members to Section XI of "Canons of Professional Ethics of the Society," which reads as follows:

"ON ACCEPTING COMMISSION OR FAVORS. The architect may not receive any commission or any substantial service or favor from a dealer, a contractor, or from any interested person other than his client."

These solicitors admit that they expect to derive a profit from the publication of these books through advertisements solicited from the material men and contractors who had been engaged on the work of building the buildings illustrated. They admit also that their fees for advertising are at the rate of $150 per page, but they deny that such fees for so small an edition of a book with such a limited circulation, amount practically to a hold-up of the material men and contractors.

Why can contractors be persuaded to subscribe to advertising in such books? The answer—Hope of possible favor from the architects whose works are published. The result—either the contractor gets the favor which he expects, or he does not. If he gets the favor which he expects, but usually denies that he expected it, then the architect is guilty of violating Section XI of the Canons of Ethics, putting it frankly, he is guilty of graft. If the contractor does not get the special favor which he tacitly expects to get when he takes such advertising, then he believes himself to have been defrauded. In other words, he carries a "bad taste in his mouth."

If the architect is doing work worthy of publication, and is not adverse to having it published, it is pretty sure to be published in the legitimate architectural or general press. If it is good, it is good news; and if it is bad, it is bad news, and even bad news is popular with some publications.

The architectural profession, as a whole, stands pre-eminently for clean business, high minded, disinterested professional standards.

If an architect wishes to have his work published in a single volume for convenience in illustrating the work which he has done, there can be no serious objection to his publishing his work, providing he does not attach thereto laudatory statements with reference to himself. If he does publish his work, he should be man enough to pay the legitimate expenses of publication.

BOARD OF DIRECTORS,
ILLINOIS SOCIETY OF ARCHITECTS.

NEW HAWS CATALOG

The Haws Sanitary Drinking Faucet Company, Berkeley, California, has issued Catalog L, showing the complete line of Haws fountains and faucets. This book is illustrated and for the convenience of the architect is arranged to show faucets according to types and uses.

Included in the catalog are sink drinking faucets, lavatory faucets, china and enameled iron models, guarded fountain heads, pedestal types, wall types, enameled iron receptors, valves and individual heads.

Complete roughing-in measurements for Haws fountains are given on two separate pages. Specifications for each model are given under the illustration.

BOOK REVIEWS

By Edgar N Kierulff

CALIFORNIA REAL ESTATE, Principles and Practices; by George A. Schneider, lecture on real estate, University of Southern California.

An exceedingly fine text book of real estate practice, intended for all persons engaged in real estate business or having interests in same. It covers practically all questions and is an excellent legal guide without actually being a volume on the law. I would recommend this book to real estate buyers and brokers as a very fine guide and hand book. Price $10.00. Prentice Hall, Inc., New York City, N. Y., publishers.

THE OLD MISSION CHURCHES AND HISTORIC HOMES OF CALIFORNIA (Their history, architecture, art and lore); by Rexford Newcomb, M.A., M. Arch., A. I. A.

I wish I might let myself go, so to speak, on this review as the book in question is one of the most charming and most beautifully arranged volumes on the subject I have ever read. To Californians this book should hold one of the coveted spaces on their book shelves and to other lovers of the missions and their history it should at least be an inspiration. Filled with rare plates and excellent photographs, a nice arrangement of type and some charming small sketches the work is indeed a valuable addition to any library. Published by J. B. Lippincott, Philadelphia, Pa.

FIRM CHANGES NAME

MacGruer & Simpson, contracting plasterers of San Francisco and Los Angeles, have dissolved partnership, and George S. MacGruer announces the formation of a new firm, MacGruer & Company, with offices, show rooms and plant at 266 Tehama street, San Francisco. Besides Mr. MacGruer the new personnel includes L. P. Fox, formerly of Fox & Company of Salt Lake City, J. C. Sugden, T. McKeating and Ralph E. Wesely. MacGruer & Company have also opened new offices in the Pacific Mutual building, Los Angeles, with C. A. Reischel in charge.

Recent contracts successfully completed by the new firm in Southern California include the Ebell Club and St. Brendon's Church, Los Angeles. MacGruer & Company are now executing the work on the United Artists Theater, Scofield Engineering and Contracting Company, builders. The architects are Walker and Eisen.

The firm has also secured the contract for the U. S. Veterans' Hospital at Tucson, Arizona, from Somner-Sollitt Company, contractors of Chicago and Los Angeles.

FIRE PREVENTION ISSUE—Richards Wilcox Manufacturing Company have devoted their October monthly bulletin "Doorways" to Fire Prevention Week and have treated the cover with a warning picture to foolhardy persons who would cause fires through carelessness. The use of R. W. fire doors is urged as a very important preventative of fire losses. The Richards-Wilcox Company, San Francisco representatives, Ewing Lewis Company, announce the removal of their offices from Market street to the new Hunter-Dulin building at Montgomery and Sutter streets.

A MODERN BATH ROOM FINISHED IN ITALIAN MARBLES

Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

BUILDING SLOWING DOWN

Building activity in the Pacific Coast cities during the first nine months of the year has reflected a 9 per cent reduction from that of the comparable period of 1926. This slowing down in building is national in scope. The record of the first eight months for 500 principal cities of the United States reported in the S. W. Straus & Co. National Monthly Building Survey shows a 10 per cent decline from last year's figures.

Some of the Pacific Coast cities, however, report notable increases, among the more important of these being Long Beach, Sacramento, Stockton, Fresno, Riverside, Pomona, Salinas and Eureka in California; both Phoenix and Tucson in Arizona; Boise, Lewiston and Nampa, Idaho; La-Grande, Oregon; Logan and Provo in Utah; Hoquiam and Vancouver, Washington; Victoria and New Westminister in British Columbia.

During the first three-quarters of the current year the 99 Pacific Coast cities have issued 115,550 permits for buildings to cost $348,635,928. The total cost volume of permits issued by these cities for comparable periods of previous years is: 1926, $386,781,-682; 1925, $416,841,029; 1924, $390,-387,552, and for 1923, $400,770,936.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

The wage scale is that in effect January 1, 1927, for a period of one year. Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
- Common, $32.00 per 1000 laid.
- Face, $70.00 per 1000 laid.
- Brick Steps, using pressed brick, $1.25 lin. ft.
- Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
- Brick Veneer on frame buildings, 70c sq. ft.
- Enamel, $115.00 per 1000, f.o.b. cars.
- Common, f.o.b. cars, $11.50, plus cartage.
- Face, f.o.b. cars, $48.00 per 1000, carload lots.

HOLLOW TILE PIREPROOFING (f. o. b. cars in carload lots).

12x12x3 in.	$ 90.00 per M
12x12x4 in.	100.00 per M
12x12x6 in.	145.00 per M
12x12x8 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f. o. b. cars in carload lots).

8x11½x5½	$100.00
6x11½x5½	74.00

Hod carriers, $7.00 per day.
Bricklayers, $11.00 per day.

Composition Floors — 18c to 50c per sq. ft. In large quantities, 18c per sq. ft. laid.

Rubber Tile—70c per sq. ft.

Terazzo Floors—60c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.60 per ton
No. 4 rock, at bunkers	1.60 per ton
Niles pea gravel, at bnkrs.	2.70 per ton
Washed gravel, at bnkrs.	1.70 per ton
Niles top gravel, at bnkrs.	1.90 per ton
City gravel, at bunkers	1.60 per ton
River sand, at bunkers	1.35 per ton
Delivered bank sand	1.00 cu. yd.

SAND
- Del Monte, $1.75 to $3.00 per ton.
- Fan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
- Belgian cement, $2.30 per bbl.
- Cement, $2.51 per bbl. in paper sks.
- Cement (f.o.b. Job, S.F.), $2.71 per bbl.
- Cement (f.o.b. Job, Oak.), $2.71 per bbl.
- Rebate of 10 cents bbl. Cash in 15 days.
- Atlas "White" .....$ 8.75 per bbl.
- Forms, Labors average 25.00 per M
- Average cost of concrete in place, exclusive of forms, 30c per cu. ft.
- 4-inch concrete basement floor.....13c to 14c per sq. ft.
- 4½-inch concrete basement floor.....14c to 15c per sq. ft.
- 2-inch rat-proofing....6½c per sq. ft.
- Concrete Steps.....$1.26 per lin. ft.

Wage—

Concrete workers	$5.50 per day
Cement finishers	9.00 per day
Laborers	5.00 per day

Dampproofing—
- Two-coat work, 20c per yard.
- Membrane waterproofing—4 layers of P.B. saturated felt, $4.50 per square.
- Hot coating work, $2.00 per square.

Wage—Roofers, $8.00 per day.

Electric Wiring—$3.00 to $9.00 per outlet for conduit work (including switches).
- Knob and tube average $2.25 to $5.00 per outlet, including switches.
- Wage—Electricians, $9.00 per day; fixture hangers, $8.00 per day.

Elevators—
- Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
- Sand, 60 cents; clay or shale, $1.25 per yard.
- Teams, $10.00 per day.
- Trucks, $21 to $27.50 per day.
- Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
- Ten-foot balcony, with stairs, $100.00 per balcony.

Glass (consult with manufacturers)—
- Double strength window glass, 15c per square foot.
- Quartz Lite, 50c per square foot.
- Plate, 80c per square foot.
- Art, $1.00 up per square foot.
- Wire (for skylights), 25c per square foot.
- Obscure glass, 25c per square foot.
- Note—Add extra for setting.
- Wage—Glaziers, $8.00 per day.

Heating—
- Average, $1.80 per sq. ft. of radiation, according to conditions.
- Wage—Steamfitters, $9.50 per day.

Iron — Cost of ornamental iron, cast iron, etc., depends on designs.
- Wage — Iron workers, bridge and structural, $11.00 per day.
- Architectural iron workers, $9.00 per day.

Lumber (prices delivered to bldg. site)
- Common, $25.00 per M (average).
- Common O.P. select, average, $32.00 per M.

Flooring—

1 x 6 No. 3—Form lumber	$19.00 per M
1 x 4 No. 1 flooring	52.00 per M
1 x 4 No. 2 flooring	51.50 per M
1 x 4 No. 3 flooring	35.00 per M
1 x 6 No. 2 and better flooring	45.00 per M
1¼ x 4 and 6 No. 2 flooring	55.00 per M

Slash grain—

1 x 4 No. 2 flooring	38.00 per M
1 x 4 No. 3 flooring	36.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90c per bdle.

Hardwood Flooring (delivered to building)—

13/16x3 1/4" T & G Maple	$135.00 M ft.
1 1/16x2 1/4" T & G Maple	145.50 M ft.
7/8x3 1/2 sq. edge Maple	132.50 M ft.

	13/16x2 1/4" T&G	3/8x2" T&G	5/16x2" Sq. Ed
Clr. Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel. Qtd. Oak	150.00 M	122.00 M	131 M
Clr. Pla. Oak	155.00 M	110.00 M	113 M
Sel. Pla. Oak	132.00 M	79.00 M	97 M
Clear Maple	147.00 M	101.00 M	
Laying & Finishing	16c ft.	15c ft.	13c ft.

Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$ 4.40
2 ply per 1000 ft. roll	6.70
3 ply per 1000 ft. roll	10.60
Sash cord com. No. 7	1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	60.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $110 per 1000.
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel), $7.50 and up, each.
Doors, including trim (five panel), $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $6 each.
Dining room cases, $7.50 per lineal foot.
Labor — Rough carpentry, warehouse heavy framing (average), $12 per M.
For smaller work, average, $25 to $32 per 1000.
Wage—Carpenters, $9.00 per day.
Laborers—$5.50 per day.

Marble—(Not set), add 40c to 60c per ft. for settling.

Alaska	$1.15 sq. ft.
Columbia	1.15 sq. ft.
Pink Lepanto	1.40 sq. ft.
Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.

Floor Tile — Set on any of above except Verde Antique $1.10 sq. ft.

Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.
Hauteville	2.25 sq. ft.
French Grey	1.40 sq. ft.

Wages — Marble setters, $9.50 per day; helpers, $6.50 per day; marble polishers and finishers, $7.00 per day.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard

Turpentine, 93c per gal. in cans and 78c per gal. in drums.
Raw Linseed Oil....92c gal. in bbls.
Boiled Linseed Oil....95c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per Lb.
1 ton lots, 100 lbs. net weight	12 1/4 c
500 lb. and less than 1 ton lots	12 1/2 c
Less than 500 lb. lots	13c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	12 1/4 c
500 lb. and less than 1 ton lots	12 1/2 c
Less than 500 lb. lots	13c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13 3/4 c
500 lb. and less than 1 ton lots	14c
Less than 500 lb. lots	14 1/2 c

Wage—Painters, $9.00 per day.
Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14" long (average), $6.00 each.

Plastering—Interior—

1 coat, brown mortar only, wood lath	$0.43 yd.
2 coats, lime mortar hard finish, wood lath	.55 yd.
2 coats, hard wall plaster, wood lath	.60 yd.
3 coats, metal lath and plaster	1.10 yd.
Keene cement on metal lath	1.23 yd.
Ceilings with 3/4 hot roll channels metal lath	.79 yd.
Ceilings with 3/4 hot roll channels metal lath plastered	1.63 yd.
Single partition 3/4 channel lath 1 side	.74 yd.
Single partition 3/4 channel lath 2 sides 2 inches thick	2.62 yd.
4-inch double partition 3/4 channel lath 2 sides	1.42 yd.
4-inch double partition 3/4 channel lath 2 sides plastered	2.94 yd.

Plastering—Exterior—

2 coats cement finish, brick or concrete wall	1.03 yd.
2 coats Atlas cement, brick or concrete wall	1.28 yd.
3 coats cement finish No. 18 gauge wire mesh	1.80 yd.
3 coats Atlas finish No. 18 gauge wire mesh	2.08 yd.
Wood lath, $4.00 per 1000.	
2.5 lb. metal lath (dipped)	.20 yd.
2.5 lb. metal lath (galvanized)	.24 yd.
3.4 lb. metal lath (dipped)	.26 yd.
3.4 lb. metal lath (galvanized)	.30 yd.

3/4-inch hot roll channels, $76 per ton.
Hardwall plaster, $14.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $17.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15.
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.
Wages—Plasterers, $11 to $12 per day.
Wages—Lathers, $8.50 to $9 per day.
Wages—Hodcarriers, $7.50 to $8 per day.

Composition Stucco—$1.60 to $2.00 per sq. yard (applied).

Plumbing—
From $58.00 per fixture up, according to grade, quantity and runs.
Wage—Plumbers, $9.50 per day.

Roofing—
Five-ply tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $26.00 to $40.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Pabco, 10-yr. roof, $8.50 per sq.
Pabco, 20 year, roof, $11.50 per sq.
Recoat, with Gravel, $3.00 per sq.
Wage—Roofers, $8.00 per day.

Sheet Metal—
Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—
Copper, $1.25 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).
Wage—Sheet metal workers, $9.00 per day.

Stone—
Granite, average, $6.00 sq. ft. in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.
Wage—Stone cutters, $8.50 per day. Stone setters, $9.00 per day.

Store Fronts—
Copper sash bars for store fronts, corner, center and around sides, will average 70c per lineal foot.
Note—Consult with agents.

Steel Structural—$92.50 per ton (erected) This quotation is an average for comparatively small quantities.
Light truss work higher; plain beam and column work in large quantities, less.
Cost of steel for average building (erected), $90 per ton.

Reinforcing—
Base price for car load lots, $2.80 per 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.
Wage—Housesmiths, $9.00 per day.

Steel Sash—
All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 80c per foot, laid.
White floor, 80c per foot, laid.
Colored floor tile, $1.00 per ft., laid.
Promenade tile, 80c per sq. ft., laid.
Wage—Tilesetters, $10.00 per day.

$100 for Better Pipe

would have saved $2500 replacement cost last year

ON Michigan Avenue, fronting the park and the lake, stands a monumental building which has been a landmark for twenty years. Its beauty, its lofty dignity, and its importance have made it known from coast to coast.

This building was one of the first "skyscrapers" in whose plumbing and drainage systems wrought iron pipe was altogether dispensed with. By methods then recently introduced, steel pipe had been so vastly improved —so it was thought—as to equal or surpass the wonderful durability of wrought iron. On that comparison, however, Time had yet to speak with authority. And Time has spoken.

Inquire what the experience in this particular building has been. Ask about last year, for example. Here is the answer:

"Two downspouts in the drainage system had to be replaced, from roof to basement —about two hundred feet for each. They were in bad shape. Then the main drainage line, from basement to sewer, failed. That had to come out—about seventy feet. The repairs were troublesome. The cost? Well, we have before us the figures for only one of the downspouts; but it is fairly typical. The pipe itself cost $60. Labor and incidentals cost $1000. The management might have bought Byers Pipe to begin with—for this one line, that is—at an extra cost of a few dollars; and thus the $1,000 replacement expense would have been avoided. For all three of the lines in question, the added cost of genuine wrought iron, at today's prices, would be about $100. On the three replacement jobs, they are *out* something like $2,500, all within a year; and probably the worst is yet to come."

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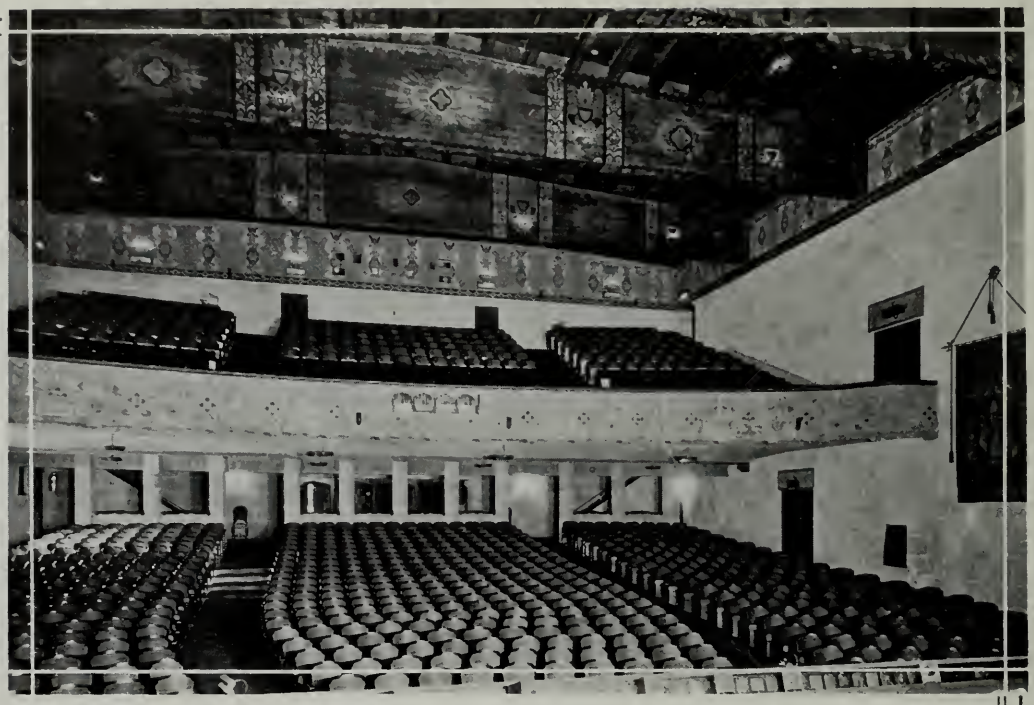

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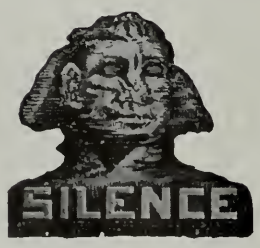

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The ARCHITECT AND ENGINEER

NOVEMBER
1927

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Architects Swing to "Gray" *and* "Variegated"

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The ARCHITECT AND ENGINEER

VOL. 91 NOVEMBER, 1927 NO. 2

The CULTURAL VALUE of STONE

By Jesse Thompson

"Build beautifully, O America,
With stone that shall chart
The highways of the winds,
With towers that shall know
The majesty of dawns,
The twilight's benediction:
But remember to build thy soul
Beyond the stone,
Beyond the tower,
Into truth."

—Arthur Wallace Peach.

IT WAS not so long ago that one of the livelier and less conservative of our public prints propounded the very piquant query as to whether or not contemporary American culture be decadent. Sophisticate opinion ran the gamut from Edmund Wilson's pedagogic "American culture has never flourished; how can it decay?" to Van Wyck Brooks' curt, "Yes, Decadent."

Somewhere between these poles lies the truth, aptly enunciated by Stuart Chase thus, "I think we are in the birth throes of a very authentic artistic culture. The only child which has come from the womb is literature. Perhaps. Next . . . architecture."

But it is not too much to state that, in America, architecture not only is making greater strides than other factors of culture, but has lent and is lending them very great assistance toward a fuller fruition.

It does not seem necessary to furnish foundation for this statement by pointing to the astonishing contrasts presented by our larger cities, say, seventy-five years ago, and now.

It is almost axiomatic that the ancient wood and brownstone horrors of a bygone Manhattan, the hastily thrown-together houses and stockyards of Chicago of a generation or two back, and the clap-board monstrosities of San Francisco, whereof a not inconsiderable number remain to this day, were the death of cultural stimulus, the inquisition of inspiration—tainting all thought with brown pessimism. To set beside these the office towers or the skyscraping apartment structures, with their terraced gardens, of a newer New York, the Tribune towers of a Chicago, the Book towers of a Detroit and the Russ and Hunter-Dulin buildings of a San Francisco, is to show very great improvement indeed.

Our libraries and galleries, our capitols and civic buildings, our auditoriums and public monuments, too, have added their quota in aid of the development of culture.

The conclusion to which this trend points becomes the more inescapable the more thought one gives to it.

Time was when the need . . or perhaps, better stated, the urge of the pioneer building spirit . . was for immediate and visible signs of the titanic work of conquering a continent, of lay-

Faced with Raymond granite

HALL OF JUSTICE, LOS ANGELES, CALIFORNIA

ALLIED ARCHITECTS ASSOCIATION, ARCHITECTS

ing out, organizing and erecting industrial, commercial and population centers. New York must become a city; Chicago, queen city of the Middle West, was weighted down with a like obsession; St. Paul, Salt Lake, San Francisco and Seattle—all were fired with the same ambition. To be great centers commercially — to take advantage of natural resources, of geographical location—to become the hub of some specialized industry—to have its name and its fame bruited abroad, these formed the desire, almost the end-all and the be-all of growth. Magnitude regardless. For by your cities shall you be known.

And if the growth was often on the crest of a tide that receded or passed on in its course, leaving unsightly areas sadly becluttered with indeterminate, empty, gaping structures -- it was a pity, not greatly to be exercised about.

All that is changed.

The American city has gone beyond the stage where it hankered after and artificially stimulated growth for the sheer delight of seeing growth. The "boom" and "booster" methods, which did not see below the surface to the quality of its development, have served their purpose. They are now not only no longer necessary; they are undesirable.

Development has taken a new angle.

"American cities," says an editorial writer in the magazine Stone, "are becoming more discriminating, more selective and consequently more permanent in their development. Municipalities no longer invite industries to locate in their limits when it is an assured fact that such industries would be short lived and prove to be a liability rather than an asset later on. Nor is the mere increase in population that certain industries, or other activities, bring to a locality now considered an asset."

Otherwise stated, it becomes increasingly clear that cities must reach beyond the limits of trade, industry or other activities, for their future development. No longer are the utility and monotony of endless factories, warehouses and tenements sufficient. Personality becomes a factor to be studied, and that leads ultimately to culture.

"Characteristics," continues the article in Stone, "are being fostered with more care and they are the greatest asset any city can boast. Detroit, for instance, is recognized as the automobile center of the country and yet good automobiles can be bought in other cities. To be the center of this, or that, is unquestionably an asset, but no so-called center enjoys a monopoly to an extent that prohibits other cities from engaging in, or dealing in the same things. The past quarter of a century has proven the futility of boosting practices, when new inventions, scientific discoveries and ever changing methods of production have served to eliminate distance as a factor in communication and transportation. In this period our cities have accumulated some valuable experiences at a staggering cost of money, time and energy."

The question then arises—if the American city is no longer to be characterized by its industries, population or wealth, where will it seek, and how attain its individuality? The answer is Cultural Development, and this brings us back to our starting point—that a beginning is being made with Architecture, a very potent factor, and the corner stone of Architecture—**Stone.**

R. Phene Spiers, in the Encyclopaedia Britannica, says of architecture that it is one of the fine arts, determined not only by the ends of the edifice but by high considerations of beauty and harmony, while Harvey Wiley Corbett, noted New York architect, notes that the skyscraper, which is of the very soul and fibre of America, embodies the first new principles in construction for over 2,000 years, thus discounting a resemblance which certain commentators have seen to Maya architecture. One wonders what Hugh Ferris would have to say of such a comparison. Again, the set-back style has been likened to the general appearance of certain Mediterranean coast towns, builded on the slope of a hill, pyramid fashion. This also seems far fetched, the principle in each case being entirely dissimilar.

Thus it will be seen that American architecture is virile indeed.

To the extent that civic buildings, as instanced by the Nebraska State Capitol, at Lincoln, and the new City Hall, Los Angeles, are cast in the mould of skyscrapers—to the extent that the University of Pittsburgh plans a skyscraper in which to house itself—to the extent that Lee Simonson, noted stage designer and architectural writer, is advocating the use of the skyscraper for the ideal museum and fine arts gallery.

Not only is this influence being felt in the higher reaches of urban life, but even in the more prosaic phases is this true. Apartment houses are now being constructed with an eye

to exterior beauty and architectural excellence, to form, mass and decoration, as well as to comfort and compactness of the quarters within.

In the business sections of our cities, merchants have learned that the attractive shop front does not offend the eye with a riot of color and display, for people are becoming more discriminating the more they are trained.

Financial institutions, banks, insurance companies and mortgage firms—are taking the lead in the movement to beautify cities by erecting monumental structures that, incidentally, enhance the value of adjoining property, serving as examples for others to follow. Proof of this may be found in the pictures which accompany this article. All of the buildings illustrated are built of granite.

Such buildings are not erected with the intention of tearing them down within a decade or two. They are built for permanence, and so the best of materials enter into their construction because it is only with the best materials that the finest effects of architectural design are obtainable.

From this point, it becomes conceivable that the building code of the future will contain requirements based upon specific information as to materials. Substitute materials will have their ratings as to strength, weathering, constituent parts, and their ability to withstand the many and various strains and stresses incident to building. The time is not far distant when construction material must be analyzed and no material permitted in certain types of buildings that shall not have passed certain tests.

SATHER GATE, UNIVERSITY OF CALIFORNIA, BERKELEY
John Galen Howard, Architect

It is not enough that walls be of a stated thickness, or that other rules of strength for frames be specified, but exteriors will have to be in keeping with architectural characteristics of the city.

Nor, in the opinion of an editorial writer, is

this view of future codes too dreamy, for indications of the growing need for more definite and exacting rules governing the development of land are everywhere evident. Sentiment is more and more opposed to the principle that a land owner can erect any kind of a building that fancy dictates, whether it enhance or injure adjoining property or tend to bring upon a district, or even a city, the odium of criticism. but lend a distinction, a beauty and a permanence not anywhere else found.

PRINCIPALS OF PROFESSIONAL PRACTICE

[As suggested by the A.I.A.]

THE American Institute of Architects, seeking to maintain a high standard of practice and conduct on the part of its members as a

BANK OF CALIFORNIA, SAN FRANCISCO
Bliss and Faville, Architects

Stone (and more particularly granite), that building material which has stood the test of time, has been subjected to the rigors of climate, and the prying of laboratories, will, as always remain the cornerstone of architecture.

Its coloring, which time cannot deface, its texture, its permanence, will continue to make it a great contributing factor toward the cultural development of the American city—for if used to the exclusion of other materials, a monumental structure is assured, while if used in conjunction with other materials, it cannot

safeguard of the important financial, technical and esthetic interests entrusted to them, offers the following advice relative to professional practice:

The profession of architecture calls for men of the highest integrity, business capacity and artistic ability. The architect is entrusted with financial undertakings in which his honesty of purpose must be above suspicion; he acts as professional adviser to his client and his advice must be absolutely disinterested; he is charged with the exercise of judicial functions as be-

POST OFFICE BUILDING, SAN FRANCISCO
John Knox Taylor, Supervising Architect

STATE BUILDING, CIVIC CENTER, SAN FRANCISCO
Bliss and Faville, Architects

tween client and contractors and must act with entire impartiality; he has moral responsibilities to his professional associates and subordinates; finally he is engaged in a profession which carries with it grave responsibility to the public. These duties and responsibilities cannot be properly discharged unless his motives, conduct, and ability are such as to command respect and confidence.

Upon the foregoing basic principles the experience of the Institute leads it to advise in respect to specific instances as follows:

1—The relation of an architect to his client is one depending upon good faith. An architect will explain the conditional character of estimates made before final drawings and specifications are complete and will not by careless statements mislead a client as to the probable cost of a building. If the architect guarantees an estimate he becomes legally responsible and he should not make any guarantee which affects the quality of his advice.

2—The contractor depends upon the architect to guard his interests as well as those of the client. An architect will condemn workmanship and materials which are not in conformity with the contract documents but it is also his duty to give every reasonable aid towards a more complete understanding of these documents so that mistakes may be avoided. He will not call upon a contractor to make good oversights and errors in the contract documents.

3—An exchange of information between architects and those who supply and handle building materials is encouraged and commended but the use of the free engineering service which is offered by manufacturers and jobbers of building materials, appliances and equipment is accompanied by an obligation which may become detrimental to the best interest of the owner.

4—The American Institute of Architects has set forth a schedule or guide by which the proper professional charges may be determined. The architect's charges for his professional service shall be made to the client only, and he will not receive commissions, fees, gifts, favors or any substantial service from a contractor, or from any interested person other than the client. He will not knowingly compete with a fellow architect on a basis of professional charges.

5—An architect in his investments and in his business relations outside of his profession must be free from financial or personal interests which tend to weaken or discredit his standing as an unprejudiced and honest adviser, free to act in his client's best interests.

6—An architect will not advertise for the purpose of self-laudatory publicity, but publicity of the standards, aims and progress of the profession is to be commended.

7—An architect may introduce to a possible client the service which he is able to perform but will not, except under unusual circumstances, offer to continue this service without compensation until it has been approved; and in no case will he offer this service in competition with others except as provided in Article 9.

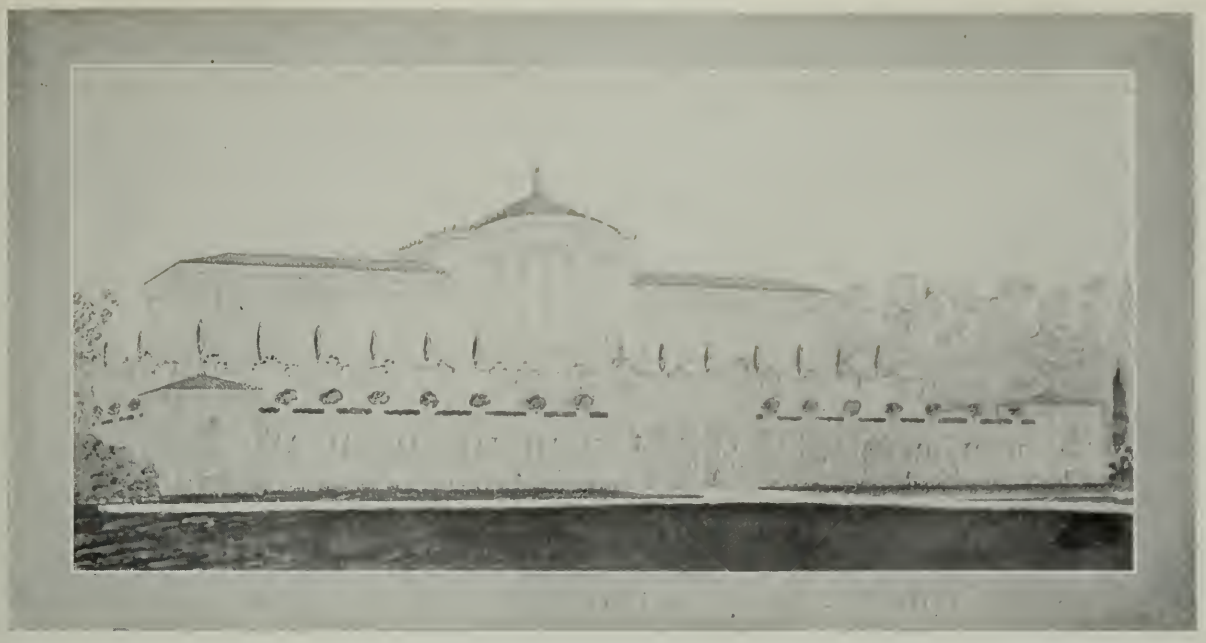
8—An architect will not falsely or maliciously injure, directly or indirectly, the professional reputation, prospects or business of a fellow architect. He will not attempt to supplant another architect after definite steps have been taken by a client toward his employment; nor will he undertake a commission for which another has been previously employed until he has determined that the original relation has been fairly and properly terminated.

9—The American Institute of Architects has issued a Circular of Information in regard to competitions. An architect will take no part in a competition which does not include the provisions which experience has found to be necessary if the best interests of the owner and of the architect are to be safeguarded.

No set of rules can be framed which will particularize all the duties of the architect in his various relations with his clients, with contractors, with his professional brethren and with the public. The principles that have been outlined should, however, together with such circulars and codes as the Institute may from time to time promulgate, govern the conduct of members of the profession and should serve as a guide in circumstances other than those enumerated. Since adherence to these principles is the obligation of every member of the American Institute of Architects, any deviation therefrom is subject to discipline in proportion to its seriousness. The Committee on Practice and the Judiciary Committee and finally the Board of Directors of the American Institute of Architects shall have sole power of interpreting these Principles of Professional Practice and their decisions shall be final, subject to the provisions of the Constitution and By-laws.

GRAND CORRIDOR, SUNSET MAUSOLEUM, BERKELEY HILLS, CALIFORNIA

WALLACE H. HUBBERT, ARCHITECT



EVERGREEN MAUSOLEUM, OAKLAND, CALIFORNIA
Wallace H. Hubbert, Architect

A Few Notes on the COMMUNITY MAUSOLEUM

By Wallace H Hubbert ~ Architect

Show me the manner in which a nation or community cares for its dead, and I will measure with mathematical exactness the tender sympathies of its people, their respect for the laws of the land and their loyalty to high ideals. —Gladstone.

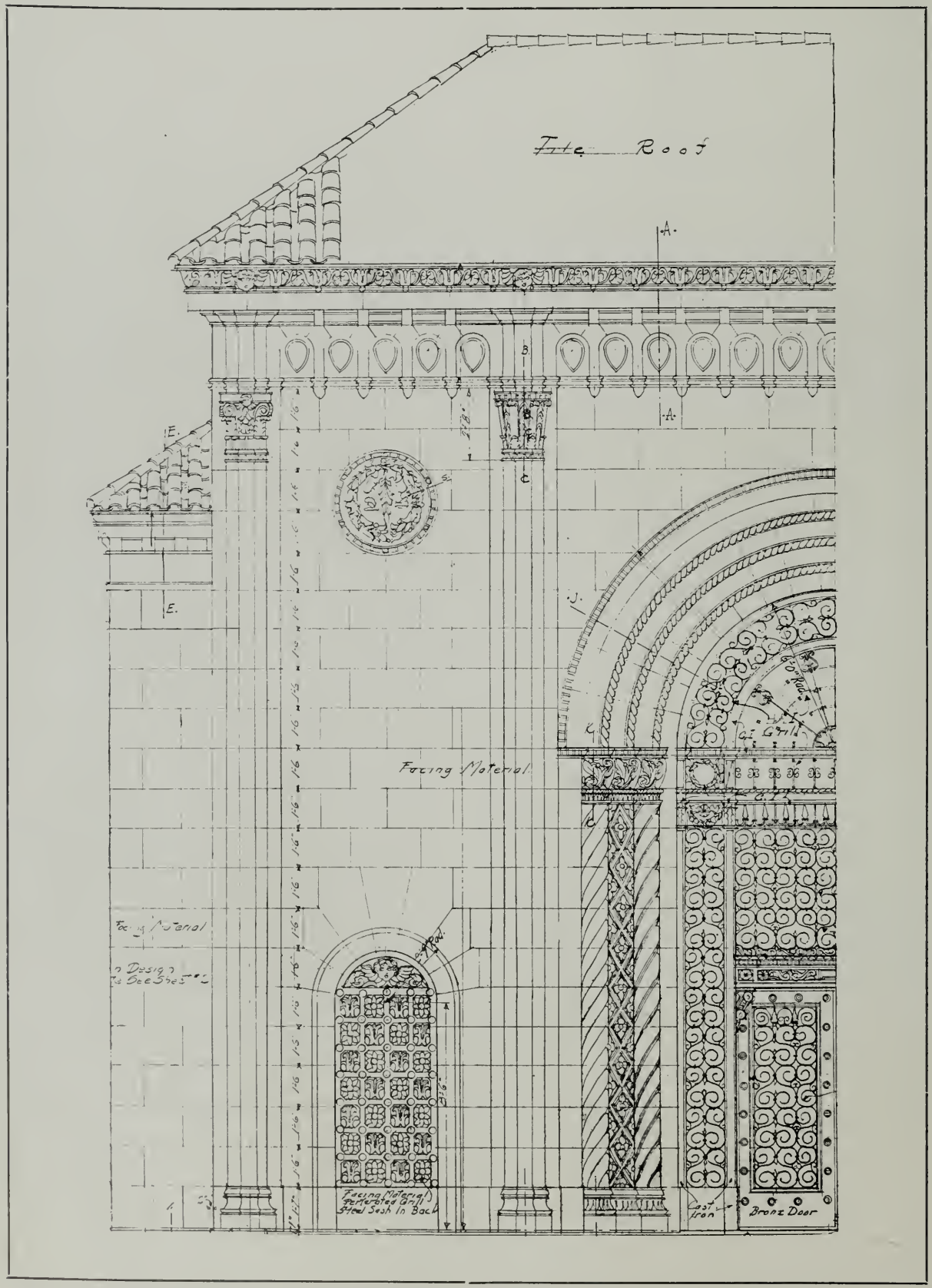
IF THIS is true then without exception every community shall hang its head in shame, for where is the city, town or hamlet without its delapidated graveyard? The beautiful cemetery is no longer beautiful after its period of financial productivity. The simplest way of disposing of the mortal remains was and is to dig a hole and place the body in it. Like the mud hut of the aborigines, the ground burial has served its purpose.

A city calculates its progress and places its cemeteries beyond its apparent eventual growth, but in the course of a few years the cemetery is in the center of the city, an eye sore, a menace to health and a hindrance to progress. Although to move a cemetery is a difficult, gruesome and tedious piece of business, as one may observe in our own community, there are cemeteries that have been moved as many as eight times.

The final resting place is seldom final.

Cremation, while being efficient, economical and sanitary, is unnatural and gruesome. Individuals, as a rule, are not particular what disposition is made of their earthly remains, but the actual task is not vested in them. It invariably falls upon the unfortunate survivor.

H. L. Mencken says: "Ground burial . . . is out of date and barbarous: Mausoleum entombment is modern, progressive and humanitarian, as sanitary as cremation and as sentimental as a churchyard. Here your departed loved ones will rest in permanent peace in an individual white marble tomb or crypt high enough above the ground, where neither water, damp or mould can enter. You have the choice of just two things; one typifying death in darkness, looking down, always down, into the grave; the other typifying light, death in sunshine and brightness, death in hope of resurrection . . . That man is rare who will devote solicitous attention to plans for his own funeral, still less



DETAIL OF CENTRAL MOTIF, SUNSET MAUSOLEUM, BERKELEY HILLS, CALIFORNIA

WALLACE H. HUBBERT, ARCHITECT

SUNSET MAUSOLEUM, BERKELEY HILLS, CALIFORNIA
Wallace H. Hubbert, Architect

PLAN OF COMPLETED PROJECT, SUNSET MAUSOLEUM, BERKELEY HILLS
Wallace H. Hubbert, Architect

T. Ronneberg, Structural Engineer

MAIN CORRIDOR, SUNSET MAUSOLEUM, BERKELEY HILLS, CALIFORNIA

WALLACE H. HUBBERT, ARCHITECT

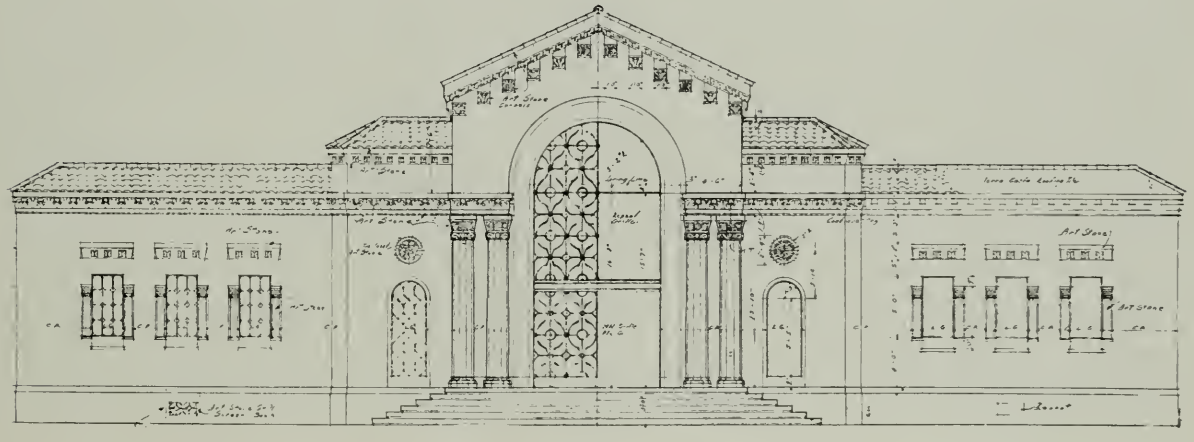
SUNSET MAUSOLEUM, EUREKA, CALIFORNIA
Wallace H. Hubbert, Architect

for his wife's. We all let it go till somebody dies, and then . . . .?"

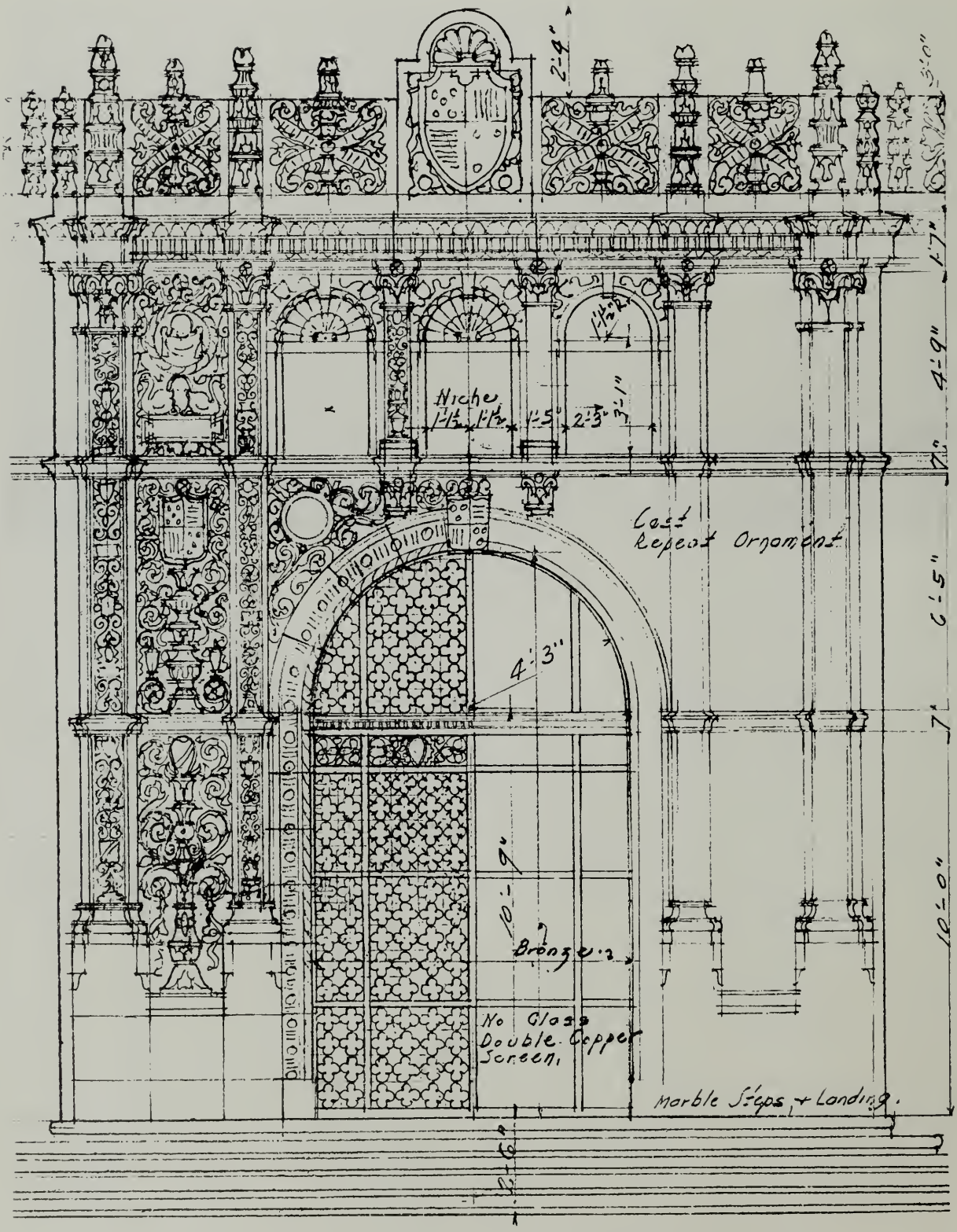
Even in the earlier stages of civilization the mausoleum was recognized as the most desirable form of burial. Kings and people of great wealth were entombed in luxurious vaults.

The community mausoleum brings mausoleum entombment within the reach of all. A mausoleum properly designed, occupying one block of land one story in height, will accommodate more than 6000 bodies. If ground is valuable simply by increasing the number of stories, a whole city's population may be cared for in a very satisfactory manner. The building is a monument to the community depicting its progress, telling the story of its individuals and the community to posterity.

The modern mausoleum, of which the accompanying illustrations are good examples, is constructed of stone, terra cotta, reinforced concrete, marble, bronze and glass. These materials are the most durable known to the build-



ELEVATION, SUNSET MAUSOLEUM, EUREKA, CALIFORNIA
Wallace H. Hubbert, Architect



DETAIL, SANTA MONICA MAUSOLEUM, SANTA MONICA, CALIFORNIA

WALLACE H. HUBBERT, ARCHITECT

SANTA MONICA MAUSOLEUM, G. H. SANDERS, OWNER
Wallace H. Hubbert, Architect

MERCED MAUSOLEUM, G. H. SANDERS, OWNER
Wallace H. Hubbert, Architect

PROPOSED MAUSOLEUM, SAN RAFAEL, CALIFORNIA
Wallace H. Hubbert, Architect

ing science, while with the perpetual care provided by a permanent sinking fund the mausoleum will last as long as there is life on earth.

To my knowledge there are more than fifty mausoleums in the state of California, but until recently but few of them have been planned with definite provisions for extension. The modern mausoleum plan provides for a number of units any group of which forms to all intents a complete building. It is our natural tendencies to exclude from our minds and scheme of things even the thought of death, therefore, until recently, the care of the mortal remains has been given but little consideration.

The rapid development of this country and more particularly this, our Pacific Coast, has brought the subject more forcibly to the attention of those who have interested themselves in public welfare. Now "thinking men" are planning and constructing community mausoleums throughout the country.

It is only a matter of a few years before mausoleum entombment will be the chief method of taking care of the dead, for in this day and age, it is as reasonable for men to live in mud huts or caves as it is for them to bury the dead.

HOME—A MAGIC WORD

Home—loveliest word in the American language; a shrine of our ideals; the tangible expression of our life's dream. A home should be more than a mere dwelling, a shelter for those whom we hold most dear.

Beauty, harmony and grace expressed in our homes gauges the capacity for beauty that we hold. ". . . . Have nothing in your house that you do not know to be useful and believe to be beautiful." An expression which will bring a simplicity which is the exact medium between the too little and the too much.

RAPID TRANSIT between SAN FRANCISCO and ALAMEDA COUNTY CITIES

By Frank H Ainsworth ~ Late Lieut Commander U S N R F

NOW that the long delayed decision of the War Department in connection with a bridge across San Francisco Bay has been given (and to those who have studied the question and are familiar with the controlling factors it is no surprise), steps may be taken looking to the establishment of practical rapid transit between the two bay counties. In substance the War Department has reaffirmed the decision it made in 1921 because no new evidence bearing on the essential elements of the case has been developed. The same reason exists today with more force perhaps than at that time because of the constantly increasing size of sea going vessels both of the merchant marine and of the Navy.

An impression seems to have gained ground that the engineering commission recently employed by the city to study the question, SOLELY RECOMMENDED THE CONSTRUCTION OF A HIGH LEVEL BRIDGE ACROSS THE BAY AS THE ONLY METHOD BY WHICH RAPID TRANSIT BETWEEN THE TWO COMMUNITIES COULD BE ESTABLISHED. A careful reading of the report of the commission discloses that in fact it recommended the high level bridge AS ONE OF THE METHODS OF IMPROVED TRANSPORTATION but not the only one.

A reference to the report of the Board of Engineers dated May, 1927, will show in the first place that the board was directed to confine its report to bridges (page 70):

> "TUBES AND TUBE-AND-BRIDGE. * * * This type of structure has not been given consideration in the report as the language of the instructions limit consideration to bridges."

Notwithstanding this limitation the board specifically recommends that tubes or tunnels be used to bring transcontinental trains to San Francisco, thereby stamping with its approval the principle and feasability of tunnels under the bay. On page 9 of the report the board states

> "Should it be advisable NOW or in the future to bring the main line trains into San Francisco, consideration should be given to sub-aqueous tubes as a means of doing so."

therefore if tubes or tunnels are recommended now for main line trains why not for interurban trains carrying the 75,000 commuters who daily cross the bay?

Again on page 42 of the same report the board advocates tubes for electric trains in this language

> "For the operation of electric trains tubes would also have an advantage over a bridge in the matter of alignment and grades and the land approaches need not be as long"

Elsewhere in the same paragraph the success of tubes is pointed to in other localities, the board stating

> "Such tubes are in successful operation for trunk line service under the Detroit river in Detroit and under the Hudson river at New York"'

so that notwithstanding the inhibition "not to consider tubes or tunnels" the board in a very definite manner states that while recommending a certain type of bridge in a certain location IF A BRIDGE SHALL BE BUILT, the best way to bring commuters and railroad traffic into San Francisco is by means of tubes or tunnels, thus leaving the vehicular traffic to use a specially constructed high bridge at Hunter's Point.

In the above lies the crux of the whole matter. It is UNREASONABLE to build a huge structure requiring some eighteen artificial islands, on two or three of which it would be necessary to erect enormous steel towers comparable to the new Telephone building in size, when the principle service to the commuters and main line traffic could be more efficiently rendered by tunnels; therefore the War Department has declined to allow such a structure because of its UNREASONABLENESS. The text of the ruling contains this language which is similar in substance to that used by the board employed by the city:

"At New York the means of crossing the vital parts of the harbor toward the mainland have been provided by tunnels and ferries and not by bridges"

and in another place sets forth

"The way is left open for the construction of tunnels and for bridges in those localities where the usefulness of the harbor will not be greatly impaired."

In view of this substantial agreement between the War Department and the Board of Engineers employed by the City of San Francisco as to the feasibility and merit of tunnels, would it not be more advantageous to set about putting that plan in effect and invite bids on a combined plan for a tunnel for railway and electric trains along the shortest line between San Francisco and Alameda counties and a vehicular bridge from Hunter's Point to some point in Alameda county south of the Naval Base site, with one arm reaching north into Oakland and the other south from Alameda city?

Those familiar with the working of Congress do not believe that it or any of its committees will be likely to overrule the War Department on the evidence thus far developed in this matter, while on the other hand, if the combined bridge and tunnel plan shall be adopted there would be hearty co-operation on the part of the Federal Government and an early start could be made on both the bridge and the tunnel.

RED AS A DECORATIVE COLOR

"Colouring is the sunshine of art that clothes poverty in smiles and renders the prospect of barrenness itself agreeable; while it heightens the interest and doubles the charm of beauty . ."

Red is a favorite color—its historical and religious associations deem it so. In Christian symbolism red is emblematical of the Passion of Our Lord and the suffering of the saints. Scarlet vestments were used for the festival of the martyrs.

Catherine De Medici expressed her preference for crimson velvet, and this color became so unreservedly admired that a law was passed forbidding the wearing of crimson robes by any woman not of royal birth. Men were not permitted more than one article of this color in their costumes.

The Flag of Defiance adopted as a military law, is the emblem of blood—indicative of fierceness and courage. Red as expressed by the poets, is symbolical of life, joy, beauty, anger and ardor.

CHAPMAN PARKWAY GARAGE, LOS ANGELES

Robert H. Orr, Architect

SKYSCRAPERS — AGAIN

By

Wyatt B Brummitt

THE September issue of Architect and Engineer contained, among other things, a number of illuminating remarks on the subject of skyscrapers by Mr. F. W. Fitzpatrick, of Evanston. Not that it matters, but Evanston is also my home town. May I, therefore, undertake polite response to my fellow townsman?

I greatly fear that Mr. Fitzpatrick has accepted the gospel of architecture according to St. Harvey Wiley Corbett. My fears are based on the pure Corbettism of his statement that tall buildings really help to relieve traffic troubles. Says he, "They (skyscrapers) take it (traffic) off the streets and handle it vertically and on their own premises."

In other words, we are invited to accept the notion of a huge office tower filling itself in the morning, shuffling its contents at noon and sending them home in the evening without using the streets at all. The thousands of earnest workers arrive by air, are transmitted over the radio or get to their desks by some obscure but effective hocus-pocus. Or maybe they phone down that they can't come to work today; important business at home. Similarly, the other thousands who desire to do business with or sell something to these metaphysical skyscraper occupants, use neither streets nor sidewalks in their comings and goings. The delivery trucks which service the hundreds of concerns in this building do not come near it. And yet, all day long, the batteries of elevators are busy taking crowds which miraculously develop in the lower foyers, for delivery on upper floors.

Another interesting bit. Mr. Fitzpatrick assumes that the neighbor to every tall building is a shantyesque firetrap. A menace to civilization, that's what. It keeps the city poor providing fire protection and deprives some deserving architect of the chance to make his everlasting fame by designing a skyscraper. I am neither architect nor engineer, but I have been told by reasonably competent men that there is no law preventing a medium-sized building from being fire-safe, strong and beautiful. The new Steinway building in New York occurs to me as an example.

Then there is the worrysome matter of taxes. Loud cries of dismay arise whenever it is suggested that a man should be taxed in proportion to his use of the land on which he builds. And well they may. If such a tax system is ever

HIGHER THAN THE EIFFEL TOWER. FOR YEARS AMERICA HAS THREATENED TO WREST THE BUILDING ALTITUDE RECORD FROM FRANCE; THE PROJECTED LARKIN TOWER, NEW YORK, WILL BREAK THE RECORD AND SET A NEW ONE, WITH ROOM TO SPARE. IT IS TO RISE 1,208 FEET; IT WILL HAVE 110 STORIES AND WILL COST, EXCLUSIVE OF THE SITE, ABOUT $18,000,000.

Photo, Underwood and Underwood; Copyright, Hamilton Maxwell

Photo, W. B. Brummitt

UP WHERE THE SKY BEGINS IN CHICAGO. A VIEW FROM THE CHICAGO TEMPLE TOWER. NOTE HOW THE LOW BUILDING IN THE FOREGROUND ENJOYS SUNLIGHT ONLY ON THE ROOF. THE STREET, FOR TWO BLOCKS, IS A SHADOWED GULLY.

inaugurated, we may as well resign ourselves to regularly recurring tag days for the relief of suffering property owners. —Let me explain. The graduated tax referred to is based on the amiable assumption that a man who builds a thirty story building actually earns twice as much as the kill-joy who limits his construction to fifteen stories. The bitter truth is that he does nothing of the sort. Fate, plus the exigencies of engineering, zoning laws and the economic law of diminishing returns, is agin' him. It has been calculated by Mr. George C. Nimmons of Chicago, that the percent return, per annum, on a thirty floor building is actually less than the per cent earnings of a building half that high. In actual dollars the return is, of course, somewhat more, but in proportion to the investment it is less.

The significant fact about the skyscraper is that it can be tolerated, by its owners and the public at large, only if it is alone and isolated. But skyscrapers love company. They are more gregarious than good old George F. Babbitt. Consider what happens. An enterprising pioneer piles up a twenty-five story building, amid cries of civic pride and delight. Whooziss' Corners will show those New York boys that they haven't got a corner on big time stuff. Then, if the pioneer is not too palpably losing money, his neighbors get to thinking the matter over. Why shouldn't they take a big profit from their property too? Purely rhetorical questions. So capital is gathered and up the new buildings go. And why do they go up as close as possible to the pioneer? Because purely fictitious land values, seem to indicate that if money is going to be made, the building had better be whopping big. And those fictitious land values are higher the closer you get to the original tall building. It's a vicious circle.

And then what happens when three or four or more tall buildings are gathered together? Well, the original building finds that the light and air it had delighted in, until the neighbors got busy, are gone. For the tall buildings are all busy shadowing and smothering one another.

Photo, W. B. Brummitt

TO SEE THE NEW BUILDINGS, CRANE YOUR NECK. A PEDESTRIAN'S-EYE VIEW OF THE NEW BANKERS' BUILDING, CHICAGO.

The result is that the per cent earnings of the entire group are lowered.

No, the tax problem from that angle should not grow grey hair for anyone. But from another, it should. If, as we have reason to do, we were to tax skyscrapers as public nuisances, we should be getting somewhere. As a nation, we have suffered from acute skyscraperitis.

Well, you may say, is not the skyscraper America's most significant contribution to the art and science of architecture? Is it not a thing of beauty and, therefore, a joy forever? Isn't it — and so on, amid suggestions that this is American and if I don't like America I can get out, and hints that I am paid by Moscow and inuendos that I used to spend my days mutilating flies.

Well, IS the skyscraper a thing of beauty? We have been told so often and so fluently that it is, that it represents America's escape from the old and her artistic "arrival," that one hesitates to question it. Is it any more logical to say that all skyscrapers are beautiful than it is to say that all men are beautiful to behold? My own notion is that the tall building does offer interesting artistic, architectural and engineering possibilities. But I do not for a minute believe that any building which occupies a corner site, rises to over twenty stories and is floodlighted at night is a thing of beauty. Most such affairs are pure wedding cake art, the illegitimate and Gargantuan off-spring of ancient and modern modes. In racing stable parlance, Chicago's most astutely advertised skyscraper must be pedigreed, "By Gothic, out of Balaban-and Katz."

Photo, W. B. Brummitt

PERPENDICULAR LINES, FIRE-ESCAPES, WINDOWED WALLS ABOVE AND CHAOS BELOW. A GLIMPSE OF TALL TOWN, CHICAGO.

Photo, W. B. Brummitt

BRIGHT AND EARLY OF A SUMMER MORNING IN THE CLARK STREET CANYON, CHICAGO. AND ELECTRIC SIGNS CONTINUE TO GLOW, TAKING ADVANTAGE OF THE MURK CAUSED BY SHADOW-CASTING SKYSCRAPERS.

Of course there are excellent high buildings. Some of them do signify a new vitality in architecture. All of them are engineering achievements. But height, alone, is not a virtue.

I admit that I share our national weakness which tends to make us see glory in Bigness. I love my superlatives. But in moments of strength I am more nearly lucid. In such moments I wouldn't offer up one weak hosannah for the project of building something—any-

thing, it doesn't matter what—ten feet higher than the Eiffel Tower.

As a nation, we shall continue to glut our city streets with traffic, and live in noisome darkness until we recover from our mania for bigness. Someday we shall cease to offer brisk alibis for tall buildings; we shall regard a high building as a bid for notoriety at the expense of its neighbors.

Photo, W. B. Brummitt

THE NEW HIGHER EDUCATION. WHILE THE TOWER WHICH DOMINATES THE NEW CHICAGO CAMPUS OF NORTHWESTERN UNIVERSITY IS LOW COMPARED TO THE BUILDING PROJECTED BY PITTSBURGH UNIVERSITY, IT IS AN EXAMPLE OF THE TENDENCY TO CENTRALIZE INSTITUTIONS WITHIN TOWERING BUILDINGS. HIGH APARTMENTS ARE ALREADY GROUPING THEMSELVES ABOUT THIS CAMPUS.

And, perhaps, by that time we shall have learned that sky-scraping is a hopeless job. For the sky, unlike mankind, knows nothing of and cares less for "overhead."

* * *

If a referendum were taken on the subject of skyscrapers the voting would certainly be emphatically contradictory. One section, which defines the progress of a nation as the intensity of its centralization in a confined area, would hold that the only improvement on a forty-story building would be one that was higher; whilst the other section would consider that even the 150 feet maximum allowed in some American and foreign cities was too high.

Ordinarily the main object of a skyscraper is to enable the owners of the ground to get the greatest possible amount of revenue, as the ground costs the same whether occupied by a one story or a 50 story building, and ground values are items for financial consideration.

In Chicago, which vies with New York in producing what many other cities describe as these "abominations," a source of revenue, in addition to that of advertising, has been created as a serious side issue by charging an admission fee to visitors on the top floor; the price of admission rising with the altitude of the building, and it has been stated that three Chicago skyscrapers bring in a collective revenue of about $150 per day from this source. One skyscraper, the Wrigley tower, which is the most "ancient" of these three, has during the five years of its existence, averaged nearly 90,000 visitors for each year.

Another Chicago skyscraper, the Tribune tower, was visited by 82,218 persons who paid for admission, during its first year, a total sum of $20,000; whilst another one, the Straus tower, received $14,000 in eighteen months.

Another skyscraper, the Morrison Hotel, which is "only" 44 stories high, charges no special fee, but offers the view from the top floor as a special privilege to guests staying in the house.

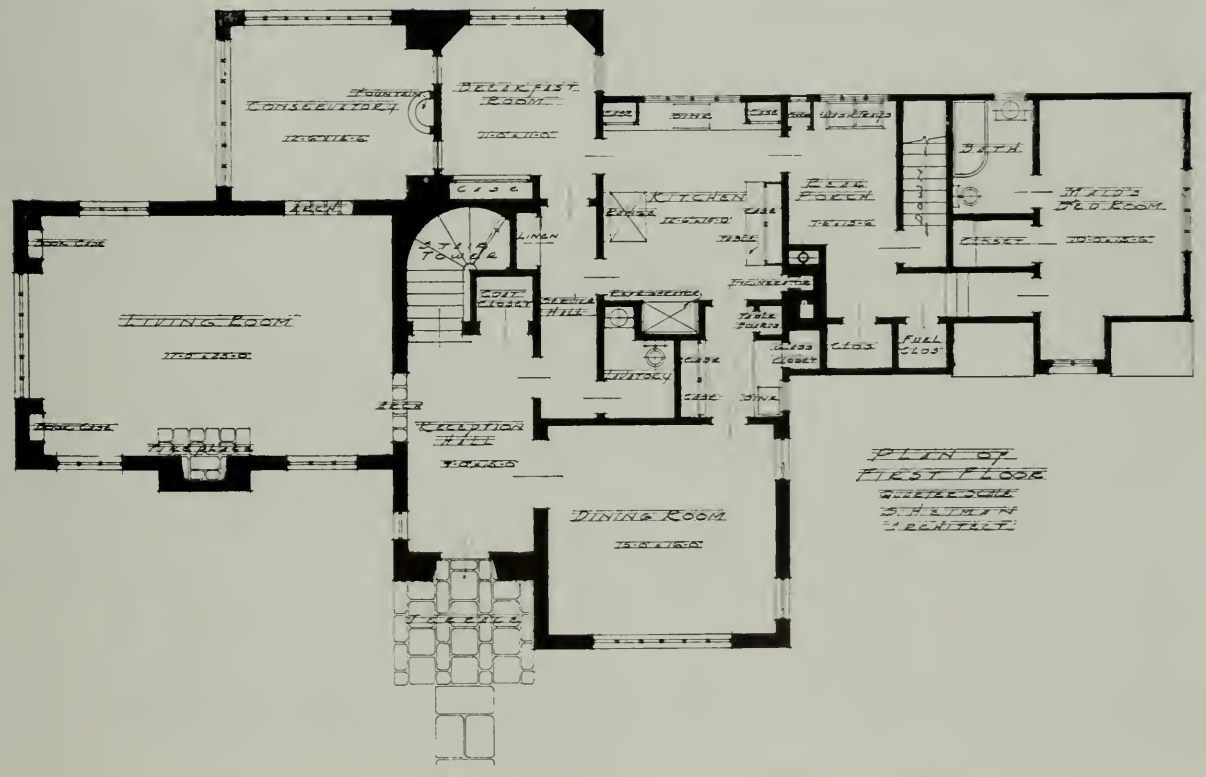
The latest skyscraper, the Jewellers' Building, which provides a marvellous vista of river and lake, intends to keep the top of the dome which is forty stories above the street pavement, purely as a lounge room for the jewellers.

The attendant in one tower, finding that most visitors were tourists, gives descriptive lectures of places of interest and arranges touring parties, with considerable profit to himself.

In another building the roof of the thirty-third story is used as a restaurant; one attraction being the fact that the food supplied was cooked in a kitchen in the basement thirty-three floors below. More than one instance is known of couples being married in a balloon or aeroplane, so that we may soon hear of a skyscraper roof being rented out for marriage ceremonies.

MASTER HOUSE IN BAYWOOD, SAN MATEO COUNTY, CALIFORNIA

S. Heiman, Architect



FIRST FLOOR PLAN, MASTER HOUSE IN BAYWOOD, SAN MATEO COUNTY

S. Heiman, Architect

HOUSE OF DR. G. F. STOODLEY (Plans on page 88)

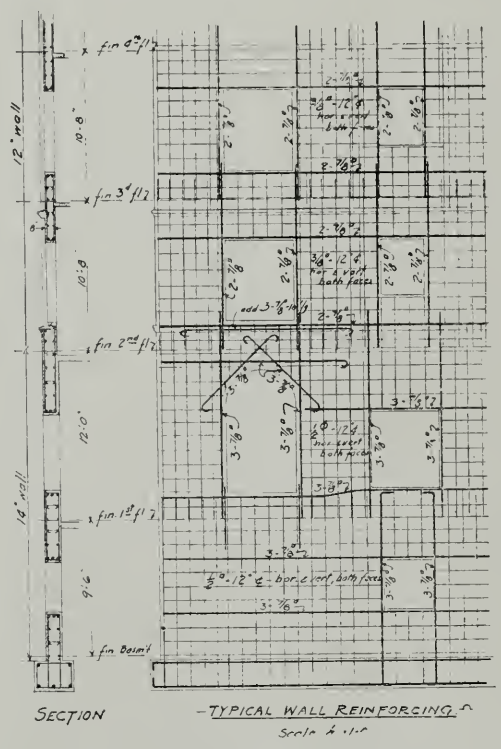
Sidney B., Noble and Archie T. Newsom, Architects

HOUSE FOR MR. R. W. OSBORN, PIEDMONT, CALIFORNIA (Plans on page 90)

Sidney B., Noble and Archie T. Newsom, Architects

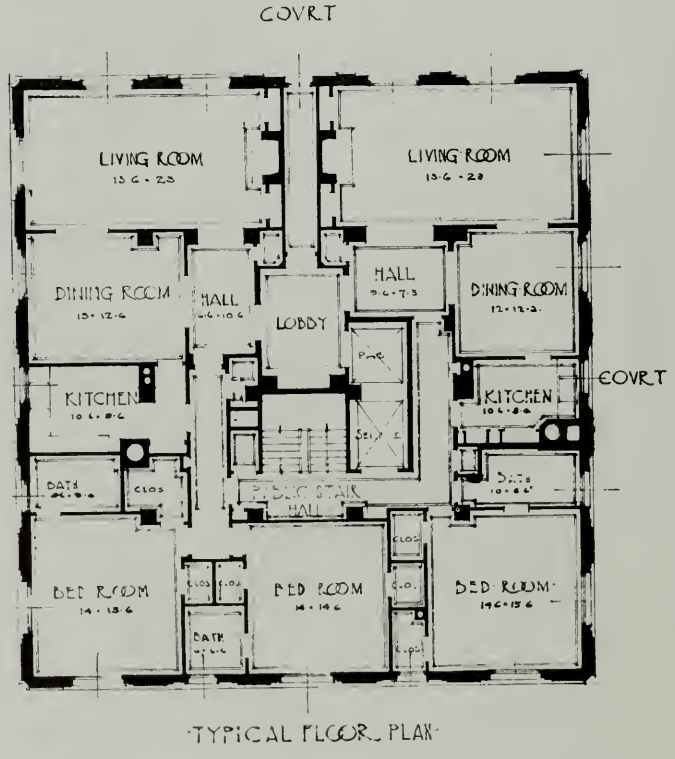
THIRTEEN SIXTY JONES APARTMENTS, SAN FRANCISCO

WILLIAM EDWARD SCHIRMER, ARCHITECT



TYPICAL WALL REINFORCING, THIRTEEN SIXTY JONES APARTMENTS, SAN FRANCISCO

Felix H. Spitzer, Consulting Engineer



THIRTEEN SIXTY JONES APARTMENTS, SAN FRANCISCO

William Edward Schirmer, Architect

ENGINEERING FEATURES of a TEN-STORY APARTMENT BUILDING

THERE is now being erected at the southeast corner of Washington and Jones streets in San Francisco a ten story apartment building of reinforced concrete in whose design and construction the advantageous features of this material are fully expressed. It is the result of close cooperation of architect and engineer.

The building is tower shaped, 50.4x57.9 in plan, with windows at all fronts facing either streets or courts. The portion below the second floor line forms a base for the tower proper, which consists of pilasters extending to the roof and ending into finials. The spandrel walls pierced by the windows are recessed between the pilasters.

From the flat roof of the building extends a high lantern, whose tile roof, housing the watertank, is supported on free standing piers and columns, with daylight showing through.

Every part of the outside walls, which are not less than 8″ thick, is calculated to carry its proportion of the loads. The pilasters, which are not less than 3′2″ wide and 12″ thick are the columns and the spandrel walls form the beams connecting them. The inside face of the exposed walls of the building are flush and plumb from the second to the tenth floor, without projection either for wall beams or wall columns. The wall below the second floor is 14″ thick and the wall above the tenth floor is 10″ thick.

All walls are heavily reinforced with steel at both faces vertical and horizontal not over 12″ on centers. Additional continuous reinforcing is placed at the sides and at top and bottom of the windows, consisting of 3⅞″ bars in the lower stories and reduced in number and size with the rising height of the building. As the walls around openings are most seriously affected by earthquake stresses, the concentration of the steel at these lines is important.

It is the intention not to plaster the outside of the concrete walls but to treat frankly the stripped concrete. This requires good formwork and well mixed concrete carefully deposited.

New shiplap is used on all surfaces, up to the sixth floor while above this line shiplap may be reused. For the pilasters the shiplap is set vertical; for spandrel walls horizontal. Thus joint lines and wood marking will help to emphasize the desired effect of direction. The base below the third floor is rusticated, by using triangular strips over every other horizontal joint.

Instead of tie wires, clamp forms are being used for the outside walls, in this way avoiding the possibility of rusty wire ends showing at the unplastered surface. At the same time better vertical and horizontal lines are obtained with these clamps than could be obtained with tie wires and without increase of cost.

As the inside dimensions of the outside walls are constant from the second to tenth floor construction is greatly facilitated.

All concrete is mixed by water-cement ratio under supervision of a field inspector and tests are regularly made by a testing bureau; 2000 lbs. concrete is generally used, except for interior columns, where 3000 lbs. concrete is used.

William Edward Schirmer is the architect for the building and Felix H. Spitzer is consulting structural engineer.

MORE ABOUT TERMITES

TIGERS and snakes are unpleasant creatures to meet and spectacular in their actions, but the harm they do is far less than that accomplished by insects, in the opinion of Lt. Colonel F. Mackie, who has studied the insect menace in India for the past twenty years. As the distinguished chief of the U. S. Bureau of Entomology, Dr. L. O. Howard aptly phrased it, "The real World War is the war between Man and the Insect," but this is a fight not only for life but also for property. The destruction in America due to insects in 1925 is estimated at two billion dollars, with ravages credited to the termite or white ant reaching well into the millions.

Unfortunately the termite appears to have no

other insect enemies, is able to work stealthily behind closed doors until the harm is completed, and, being native to the trees and forests, from which it was displaced in earlier days, now refuses to be eliminated from a region it claims as its own. The march of the termite across the continent is not unlike the march of Sherman to the sea, with the difference expressed in millions of dollars more destruction with each year of the termite invasion.

The relatively handsome sum of $140,000 appropriated by the last Congress for alterations to the public buildings damaged by the termite in Washington, D. C., was used up so rapidly that long before the summer ended the coffers were empty with half-a-dozen structures still untouched. That so large a sum should be required to repair damage from mere ants will come as a surprise only to such citizens as those who have never been properly introduced to the termite. The house-owner who discovers this insect on his hearth is apt to pay from five hundred dollars to fifteen thousand or more for the privilege, according to Dr. Thomas E. Snyder, of the Bureau of Entomology.

Public buildings may become so seriously damaged that the cost of ripping out the timbers from the concrete and reconstructing the walls may run up a bill of many thousands of dollars, as was the case of the Chevy Chase Club, familiar to most visitors to Washington, and a church at Biloxi, Mississippi, to mention only two out of scores of instances. Sixty private dwellings in Washington, D. C., have been kept actively at work this year in an effort to repel termite invaders in their ballrooms as well as in their cellars. The list of owners is somewhat aristocratic, including two Senators, several Congressmen and a Cabinet officer as chief victims. In the latter outrage, the floor of the room that entertained some two hundred guests last New Year's day would be dangerous for six today as the result of termite infestation, and it may be added that this is by no means an unusual record for this pest.

In Pasadena, California, says a writer in the Journal of the A. I. A., the presence of termites was discovered and an exhaustive examination of the entire city was at once started. In two days it was learned by Chief Building Inspector Putnam that 24 out of 25 varying types of structures inspected had been damaged by the termite. In one notable case, the roof of a large garage had been so badly infested that it would have undoubtedly collapsed in a few months, while a private home was discovered where the lath and studding for a six-foot area had been so eaten away that only plaster held up the side of the house.

The city chemist of Los Angeles has worked for years on the problem of the protection of telegraph poles, and a conference is to be held of the inspectors of various cities in southern California in an effort to combat the inroads of the termite in that section. The Forest Service sent an appeal to Dr. Snyder to make a tour of the infested region, but the lack of funds in the Bureau of Entomology made a personal inspection impossible, though close co-operation will be maintained by letters, etc.

In Honolulu it was recently announced that over a million dollars' worth of damage had been the result of the termite invasion in spite of strenuous efforts to dislodge it. Dr. Edward Ehrhorn, a consulting entomologist, has been retained in order to protect the community for the future from further attack, while an expert on the Territorial Board of Agriculture, David T. Fullaway, was appointed to visit the Orient in a search for colonies of insect enemies of the white ant.

It appears, however, that science has combed many far-away regions for such colonies in vain, and the only known cure is termite prevention. One of the chief drawbacks has been that many builders were unwilling to believe that such grave injury was caused by ants, and preferred to base their faith in "dry rot" or "fungus," in spite of the fact that close examination of the wood showed millions of the termites in the infested timber, and that rot cannot exist in seasoned wood with less than ten per cent of moisture. Needless to add, the white ant is not bound by any such restrictions.

It is the hope of the Department of Commerce and the experts of the Department of Agriculture that the building code will be modified in the near future, and a special campaign is now under way to aid this program. The principle object is to keep all untreated wood from contact with the ground where the termites find entry, and from which they obtain moisture. A special grade of mortar should be used in foundations or in cellar walls where they come in contact with the earth, as termites are able to penetrate some mortar after a period of years; while all brickwork below the surface of the ground should be capped with concrete at least an inch thick.

A British Criticism of the

NEW LOS ANGELES CITY HALL

THE following criticism of the new Los Angeles City Hall appeared in the September number of Building, a magazine devoted to architecture and general building construction and published at Sydney, Australia:

"If Los Angeles is not bursting with civic pride it is a marvel, as probably no modern city in either America or any other country is 'boosted' all over the world per medium of picture films and other agencies to the same extent. In order to keep up to her reputation the civic authorities commissioned Architects John C. Austin, Albert C. Martin and John Parkinson together, to prepare a design which we illustrate (a picture of the building is shown as a frontispiece in this issue of The Architect and Engineer), and as the names of these three associate architects proclaim them as being originally at least of British stock, they will take any criticism of the design as fair and genuine. As a work of architectural beauty little can be said in its favor, and even as a means of obtaining the fullest results from the area, it is a failure; as, if the whole of the central feature were omitted and the outer walls carried up with a central open area for light and air, more accommodation at less cost and greater practical utility would be obtained. The only object served is that Los Angeles City Hall comes into the skyscraper class. For advertising reasons this may be an asset, but a city as well boomed as Los Angeles might well have afforded to instruct these three architects to design a thing of beauty, instead of what was evidently asked of them. It looks as though the three architects worked separately. No. 1 on the street facade, which is a low building, well proportioned, and with a pleasing classic portico. No. 2 was evidently a factory architect and did the wings which are simple and utilitarian, but not ungainly. No. 3 did the tower, which is ungainly with its great buttresses, and heavy mass which threatens to crush right through the other sections. Mostly buttresses take bulk from the building, whilst giving the impression of support; but these buttresses contribute bulk to the building and only succeed in making it heavy."

* * *

In the same publication, the new Telephone building in San Francisco, was described as suggestive of "a man with abnormally high shoulders wrapped up in a sheet, as from the point of view of the photographer, the central highest point has been foreshortened almost out of sight. Most people in San Francisco would not even see that much, except from a distance. Considering the building, however, from another aspect, without doubt Architects Miller and Pflueger, who designed it, deserve considerable credit, as they have evolved a building which suggests "stability" without sacrificing, as so many skyscrapers have done, a very high percentage of the areas of the upper stories. If this were a Gothic building we should say that the fronts were divided up with bays by very deep buttresses, which extend two-thirds of the total height, when a series of set backs begin. The general effect as far as detail is concerned and skyline, is infinitely superior to most buildings of the type."

WHAT BECOMES OF RENT DOLLAR?

"Building Management" gives the answer to the question implied in the title as supplied by the manager of a large office building in one of the most progressive cities of the country:

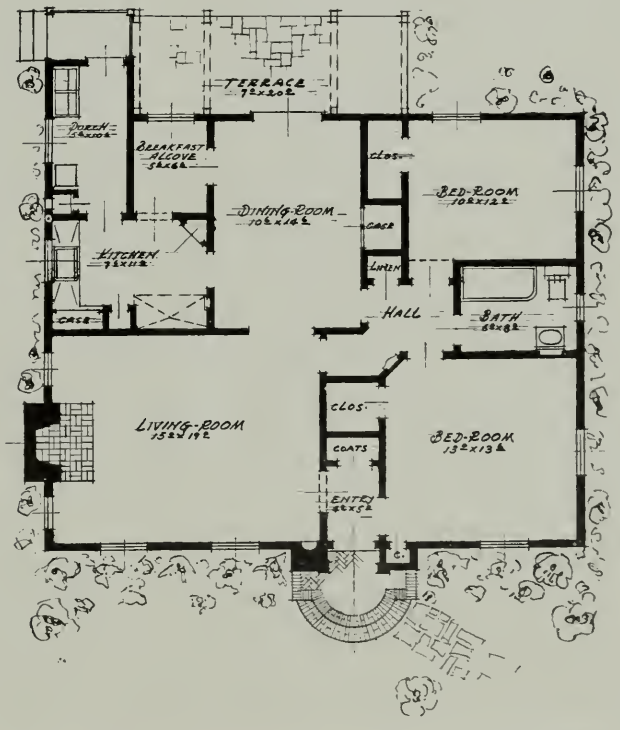
Item	Cost
Janitor supplies	0.004
Janitor salaries	0.132
Water supply	0.007
Fuel	0.011
Engine room repairs	0.003
Engineer force salaries	0.012
Elevator repairs and supplies	0.003
Elevator electricity	0.011
Elevator salaries	0.018
Building supplies	0.004
Building repair	0.022
Electric lights	0.025
Electric power	0.005
Electric repairs and supplies	0.004
Miscellaneous	0.004
Taxes	0.179
Insurance	0.007
Office administration	0.022
Depreciation, interest and net income	0.527
	$1.00

ENTRANCE, HOUSE OF MRS. RUSSELL B. COLEMAN, BURLINGAME

DESIGNED BY RUSSELL B. COLEMAN

HOUSE OF MRS. RUSSELL B. COLEMAN, BURLINGAME

Designed by Russell B. Coleman



PLAN, HOUSE OF MRS. RUSSELL B. COLEMAN, BURLINGAME

Designed by Russell B. Coleman

SUMMARY of SPECIFICATIONS OF a COLONIAL HOUSE

DESIGNED By RUSSELL B COLEMAN

Size of House:

38x32 feet, occupying a 50 foot lot. There is a single car garage with studio, 10 by 12 feet. Cost $5800 or approximately $4.75 per square foot.

Exterior Finish:

Entrance steps and chimney are select common brick of orange shade.
Frames of all exterior openings of kiln dried No. 1 California R. W.
Entrance door and sash of sugar pine.
Exterior covering is kiln dried No. 1 California R. W. 1x8-in. lap siding.
Shutters are R. W.
Roof is white cedar shingles laid 4-in. to the weather.
Lantern is galvanized iron.

Exterior Colors:

Walls are Colonial White.
Roof is silver gray.
Sash is a faded apple green shade.
Shutters are a faded olive green.
Lantern is verde antique, wax finish.

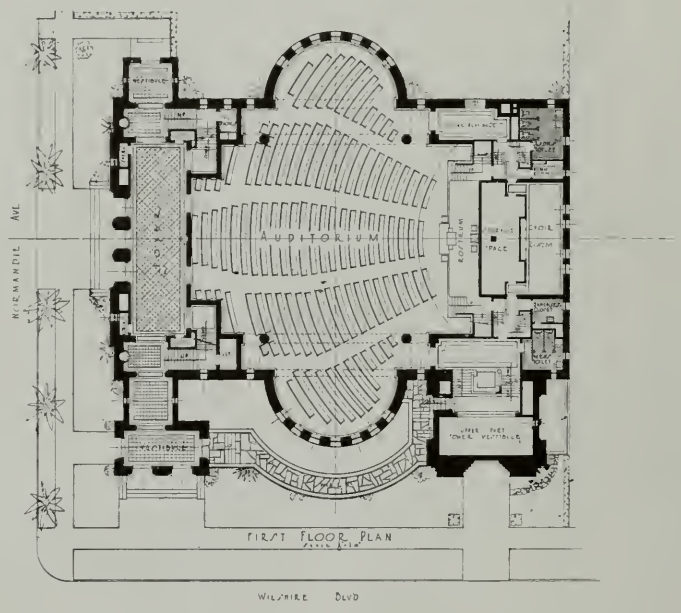
Interior Finish:

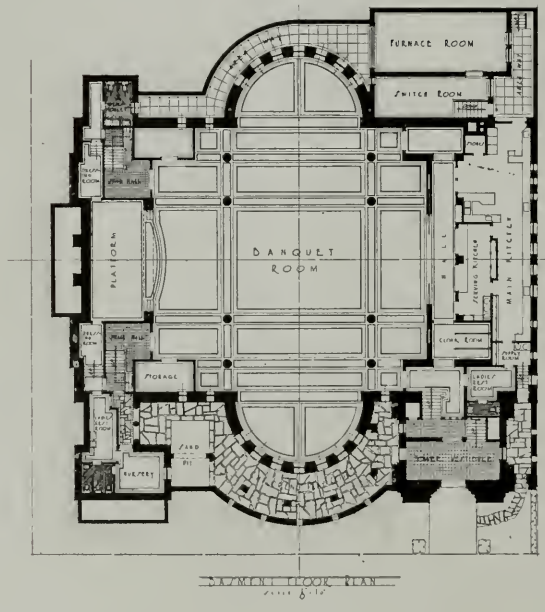
Doors are single panel Colonial.
All walls and ceilings are plastered.
All rooms papered except kitchen, porch and bath.
All ceilings other than kitchen, porch and bath are tinted.
Walls and ceilings of kitchen, porch and bath are painted and stippled.
Kitchen and porch are painted pea green with warm ecru, gloss enameled woodwork and wainscot.
Breakfast alcove is papered with vari-colored paper, with trim same as kitchen.
Floor of kitchen and porch is covered with green and ecru marbelized inlaid linoleum, with diagonal alternating pattern.
Bathroom has white tiled floor and base, white gloss enameled wainscot and trim with rose stippled walls and ceiling.
The living room, dining room, entry and hall all have painted woodwork with flat enamel of Colonial cream.
Ceilings are tinted a warm white.
Living room and dining room have cove ceilings.
Mantle and dining room Colonial cabinet are kiln dried California R.W. treated the same as adjoining woodwork.
Walls of the above are papered.
The front bedroom is trimmed with orchid and the rear bedroom with rose, with paper to match.
The floors of all rooms excepting kitchen, porch and bath are oak finished natural.
Closets are cedar lined.
Hardware is of special design, with lever handled in living and dining room.
Hardware is cast bronze finished in Old Venetian brass in the living room and pewter in the dining room. The bedroom hardware is natural cast bronze with cut glass knobs.
The lighting fixtures are of the owners' design and finished to match the hardware in living and dining room, and to match the trim of the remainder of the house.
The house is heated with gas floor furnace located in the central hall.

Wurster Construction Co., Contractors and Engineers

WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES

ROBERT H. ORR, ARCHITECT





PLANS, WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES

ROBERT H. ORR, ARCHITECT

Wurster Construction Co., Contractors and Engineers

WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES

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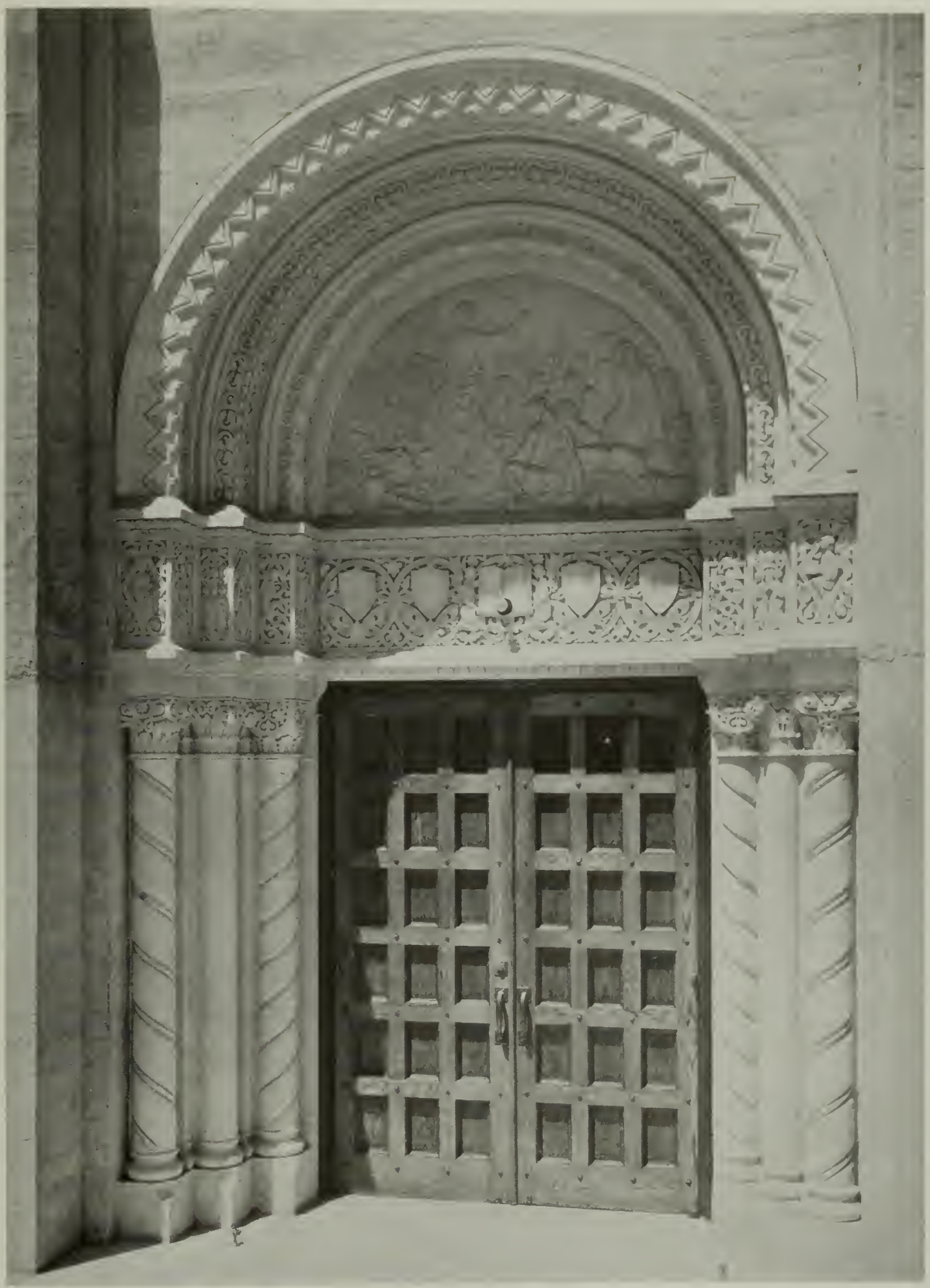


TOWER ENTRANCE, WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES

ROBERT H. ORR, ARCHITECT

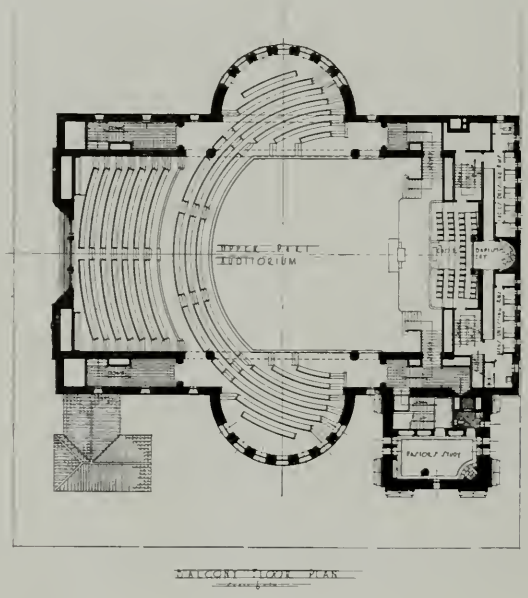
AUDITORIUM, WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES

ROBERT H. ORR, ARCHITECT

Seating by Rucker Fuller Desk Company

AUDITORIUM, WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES

ROBERT H. ORR, ARCHITECT



BALCONY FLOOR PLAN, WILSHIRE BOULEVARD CHRISTIAN CHURCH, LOS ANGELES
ROBERT H. ORR, ARCHITECT

VIEW FROM PORTICO, CALIFORNIA CHRISTIAN HOME, SAN GABRIEL, CALIFORNIA
ROBERT H. ORR, ARCHITECT

ENTRANCE, CALIFORNIA CHRISTIAN HOME, SAN GABRIEL, CALIFORNIA
ROBERT H. ORR, ARCHITECT

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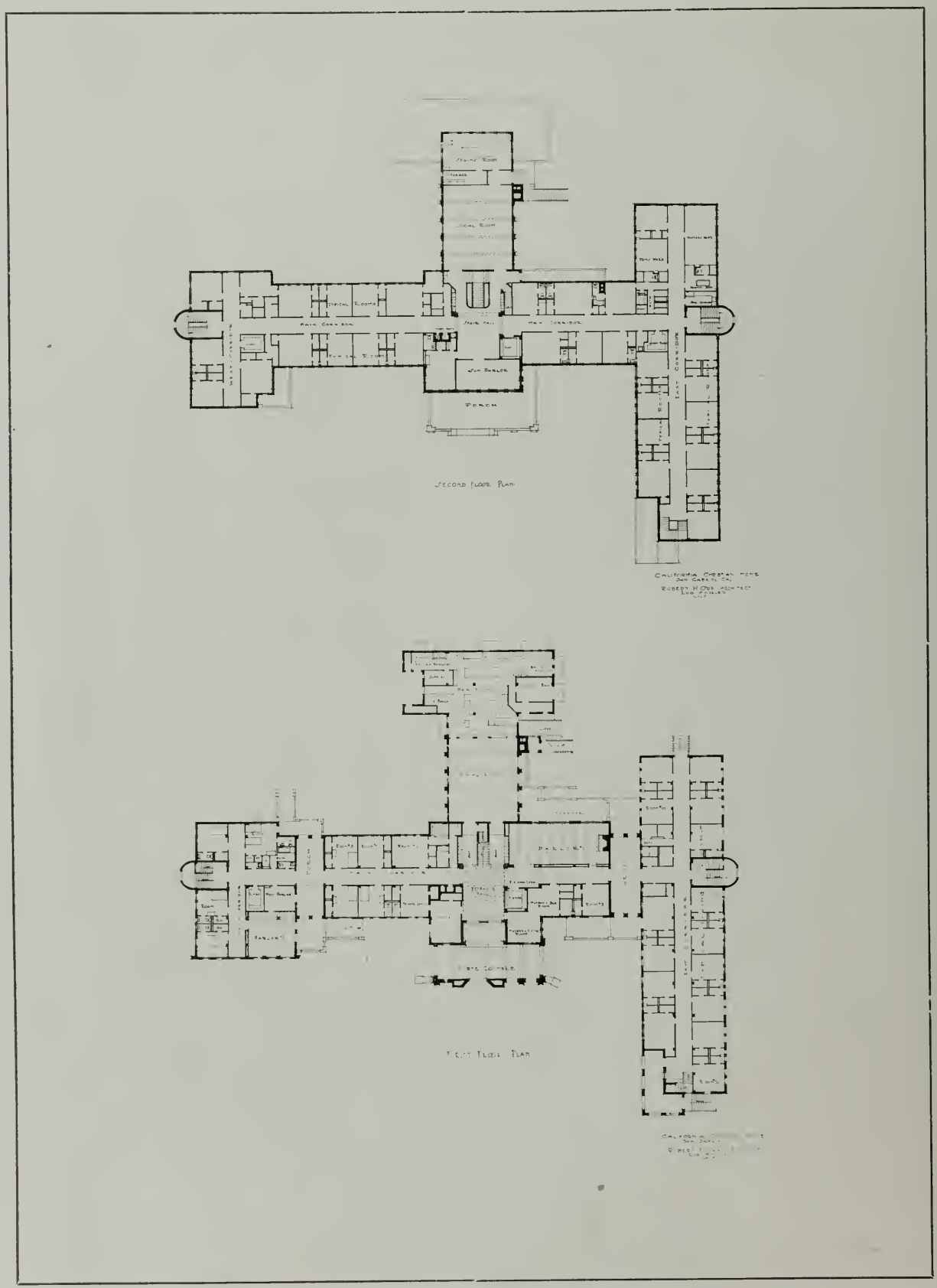
CALIFORNIA CHRISTIAN HOME, SAN GABRIEL, CALIFORNIA

ROBERT H. ORR, ARCHITECT



PLANS, CALIFORNIA CHRISTIAN HOME, SAN GABRIEL, CALIFORNIA

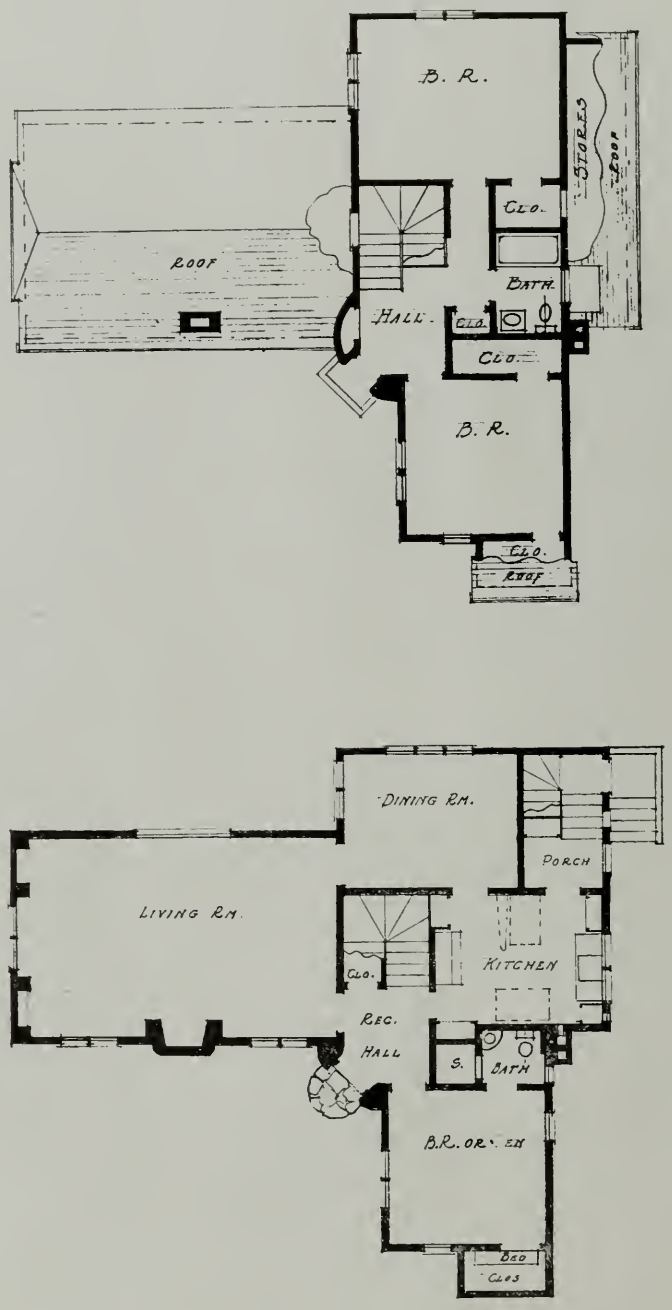
ROBERT H. ORR, ARCHITECT

PORTE COCHERE, CALIFORNIA CHRISTIAN HOME, SAN GABRIEL, CALIFORNIA

ROBERT H. ORR, ARCHITECT

HOUSE FOR DR. G. F. STOODLEY, BERKELEY, CALIFORNIA

SIDNEY B., NOBLE AND ARCHIE T. NEWSOM, ARCHITECTS

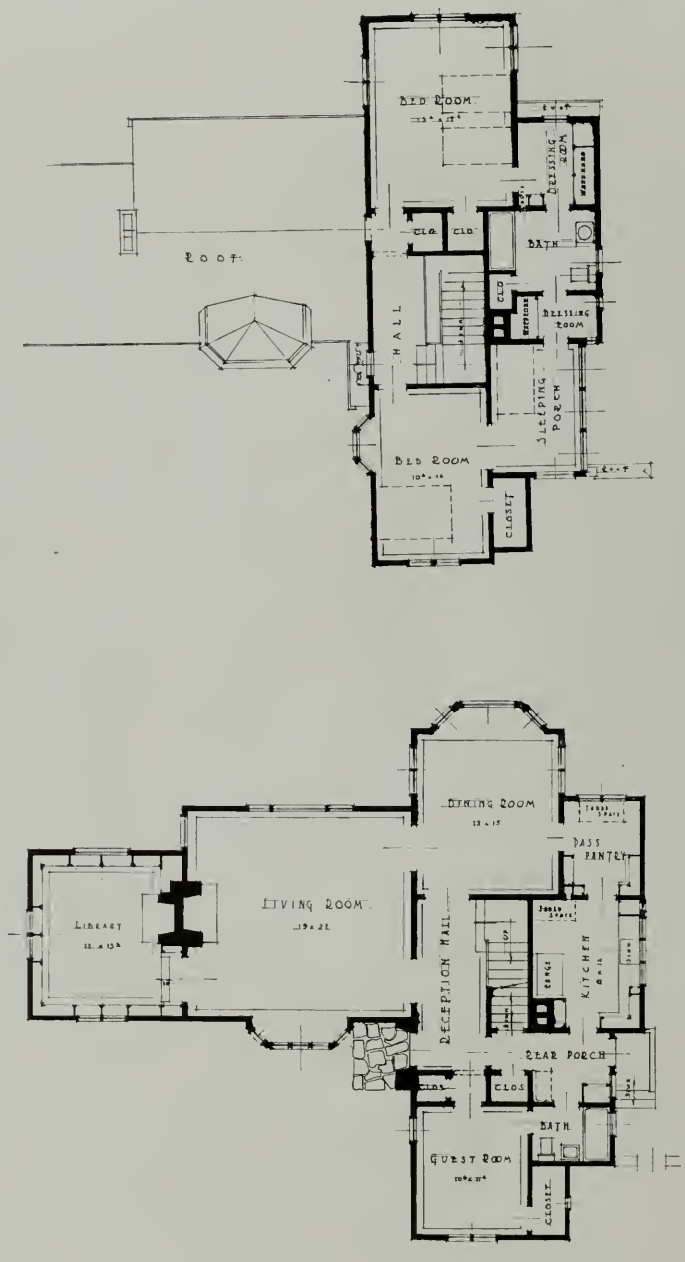


PLANS, HOUSE FOR DR. G. F. STOODLEY, BERKELEY, CALIFORNIA

SIDNEY B., NOBLE AND ARCHIE T. NEWSOM, ARCHITECTS

HOUSE FOR MR. R. W. OSBORN, BERKELEY, CALIFORNIA

SIDNEY B., NOBLE AND ARCHIE T. NEWSOM, ARCHITECTS



PLANS, HOUSE FOR MR. R. W. OSBORN, BERKELEY, CALIFORNIA

SIDNEY B., NOBLE AND ARCHIE T. NEWSOM, ARCHITECTS

LIVING ROOM, HOUSE OF MR. R. W. OSBORN, BERKELEY, CALIFORNIA

SIDNEY B., NOBLE AND ARCHIE T. NEWSOM, ARCHITECTS

LIVING ROOM, HOUSE OF MR. R. W. OSBORN, BERKELEY, CALIFORNIA

SIDNEY B., NOBLE AND ARCHIE T. NEWSOM, ARCHITECTS

Terra Cotta by Gladding, McBean & Co.

WASHINGTON GRAMMAR SCHOOL, CULVER CITY, CALIFORNIA

ROTH AND PARKER, ARCHITECTS

Terra Cotta by Gladding, McBean & Co.

MADISON SCHOOL, SANTA MONICA, CALIFORNIA

FRANCIS D. RUTHERFORD, ARCHITECT

Impressions of the WILSHIRE BOULEVARD CHRISTIAN CHURCH

By an Architectural Layman

By Arthur Braden Ph D ~ President ~ California Christian College

THE other day, I happened into one of the so-called million dollar church edifices, recently erected in a great western city. The church is built in the form of a cross, the ceiling of the great auditorium is a gold leaf bizarre indented affair which would have graced a hotel lobby. The chair seats belong to the theater rather than the sanctuary. The whole thing is a sort of combination of hotel, theater and church, an architectural monstrosity.

This is exactly what the Wilshire Christian Church edifice is not. This is a church and it is nothing else. While including several types of architecture, the edifice is an architectural unit and makes a unified impression and appeal. Fronting on Wilshire, one of America's greatest boulevards, this building is a poem in concrete. The great tower with its chimes is a symbol of the strength, permanency, beauty and aspiration of the religion for which it stands. It is a citadel of faith.

The auditorium is a thing wondrous beauty of line, elevation and color. The great height of the ceiling lends a distinct cathedral atmosphere. The pulpit platform and especially the treatment of the great organ front are a delight to the eye. All is massive, yet churchly. There is nothing gaudy, cheap or out of place. No discord anywhere. Worked out to the last detail everything from pews to the great rose window is made to fit into the plan of making this the real cathedral, which it is.

Even in the basement assembly room the churchly character has been successfully carried out. Basements are proverbially cheerless, colorless, dark and cold. But not so here. All is warm and bright with beauty of line as well as a splendid adaption to utility.

Altogether Architect Robert H. Orr has erected at the corner of Wilshire boulevard and Normandie avenue, Los Angeles, an outstanding monument. To have builded such a church is an achievement. Leaders among the Christian churches who have seen the edfice, declare that he set a new standard for ecclesiastical building of that brotherhood when he built the Wilshire Boulevard Christian Church.

THE CHEST

By K. E. Hamilton

THE chest seems to have been a part of man's equipment since the beginning of time; each age and country featuring its own artistic charm.

In all history, perhaps, there is not a greater fund of romance and tradition associated with any one piece of furniture than there is in the chest.

Chests were first made in a most primitive manner, by hollowing a log, as the savage fashioned his canoe. Then came the rectangular box with a lid, often beautifully carved. The gilded Italian marriage coffer was the most elaborate of all.

Chests were used as a receptacle, seat, and often used as a bed. In 1500 it would have been a serious breach of etiquette to sit on a chair in the presence of royalty, but perfectly proper to sit on a chest or coffer.

Our bureaus are a development from the chest. Trustles were used to support the chests later and this transition made demands for drawers, and it ultimately became the bureau.

The woods most used in these chests are: oak, mahogany, teak and tulip-wood.

The old dower chests, or bridal coffers, for many centuries were the most important pieces in the household. Many of these beautiful specimens are the treasured possessions of those who have an understanding and an appreciation of history, romance, and art.

FITZPATRICK'S CHATTER

The Evils of Competition Again Discussed
An Architectural Movie in Prospect

THE editor of Australia's contemporary of The Architect and Engineer, "Building," of Sydney, got off a good one in his last issue. Severely criticizing a monument designed by an English architect of renown, a supposedly skilled designer with many fine buildings to his credit, he naively wrote: " . . . Many people" (when they see such atrocities perpetrated over a big name) "would suppose their own taste must be at fault, as this designer is an authority."

The glamor of a great name, what sins have been committed under its protection! As in the case in point, the offending design is one of the worst things done architecturally in any country, yet many people will rave over it. So with plays, literature, everything else. One who has made a success can get away with murder even and the great mass of people will wildly applaud. And success in any one line wins the title to great authority in everything else. Ford, for instance, a great maker of autos and a wizard in getting results in his shops, handling men and devising labor saving machines and ways. But bless you, because of that and of his acquisition of millions, people think he must likewise excel in everything else, his opinions about peace, world affairs, international finance, the bringing up of a baby, and, above all else architecture, are awaited with bated breath.

That issue of "Building" had cuts of many of the designs submitted in the much-heralded competition for the Australian War Memorial building at Canberra, a $1,200,000 project.

A review of those designs inspired the writer hereof to get a mild critique thereof off his chest in that journal and since most of his sage remarks are as applicable to our own American competitions and the two journals are so far apart and serve such different clienteles, I may be forgiven for saying the same thing the same way in the two journals—usually a very sinful sin that deserves and gets severe punishment. So here's the quotation:

"On the whole that competition strikes me as most unsatisfactory. The big world-wide competitions generally are. Our last big one, the Chicago Tribune, was what the boys call a "frost." Some good stuff, but scads of mediocre. And truth compels me to add that nearly all of the foreign offerings were worse than mediocre. One reason for that may be that the really clever European chaps did not go into it. On the other hand we could retort that neither have they executed the recent European work, for most of that if not all of it is apparently designed by just the sort of chaps who submitted designs in that competition, generally poor stuff. With that statement before us, I may be permitted to let the American Eagle give one raucous scream by remarking that there is no doubt in my mind (and strange enough I can be impartial and have seen enough and been long enough at it to convince myself at least—that I am impartial) that the rank and file of the American architects are giving a better account of themselves than are the Europeans. And we ought to, for we are doing so much greater volume of work. And yet, and yet, with the Tribune competition still in mind, and being a great admirer of the completed building, a really fine structure, I still think, nevertheless, that Eliel Saarinen's design, placed second, was far and away the best; an unborrowed style, expressing fully a skyscraper's purpose, indicating its mode of construction, its materials, a logical real "set-back" design in every sense of the word. And to prove that there is no rule without exceptions, let us keep in mind that Mr. Saarinen is a Finn and had never seen a skyscraper. We can call that real genius.

We are casually remarking that the Australian competition was a sore disappointment. Just lines and more lines, and the more important did the project seem to the competitor the more stuff he piled upon the drawings. Almost a total absence of reasoning in design, a sad lack of appreciation of the subject and a total disregard of the cost limit. There were state capitols, exposition buildings, court houses, summer hotels, grand projects of the Beaux Arts (the foolest bringing-up we can inflict upon our succeeding generation), everything under the sun, an appalling indictment of the whole blooming profession. Reminds me of Wallace Irwin's clever slap at a similarly "unfortunate" building—

"Forty-eight archeetecks came to consult,
Drawing up plans for a splendid result.
If the blooming state wanted to pay
They'd give it art with a capital A.
Every style from the Greeks to the Hindoos,
Dago front porches and Siamese windoos,
Japanese cupolas fightin' with Roosian,
Walls Senegambian, Turkish and Proosian;
Pillars Ionic
Eaves Babylonic,
Doors cut in scollops resemblin' a shell.
Roofs Egyptian
Gables Caniptian
Whole great effect when complete, wuz—
hell!"

A very few deserve a second glance and even those chiefly because of some one feature, plan grouping or detail and not because of its composition or merit as a whole, a worth while design for a great National War Memorial. And some of them arouse all one's sense of humor to a cackling point. Such ambitious flights as the A. G. Barrows' for instance. Yet even in that, wild-eyed as the man may be, there are bits of special merit, a good dome, pretty domelets, etc., but too much of them. He simply suffers exaggeratedly, or in a virulent degree from a very common failing among architects, that of running away with themselves, never knowing when to stop.

Do you ever stop to think that what repression and real dignity you find in architect's designs reflects little credit upon them? It is simply that the clients won't pay for too much flub-dub and so put the brakes on them. Ye gods, imagine, if you can, what seven hundred out of seven hundred and ten architects would do to that War Memorial if the price limit were taken off altogether!

* * *

Of course you have read about the Great Peace City, headquarters of the League of Nations, World Capitol, Center and Clearing House for the great International Societies and so on that has so long been advocated, the dream and life-work of Hendrick Christian Andersen and his associates. Andersen, a sculptor of international fame (long a resident of the United States, though for years past he has lived in Rome) has worked at that most serious hobby for years, he has spent a private fortune of generous proportion in furthering it, and has founded the World Conscience Society to carry on the work. The King of Italy, Premier of France and such notables hold offices therein and are helping the plan along. It so happens that the only American officer, the Commissioner for the United States (yours truly) and the office of the Society are in Chicago.

Some time ago Mussolini gave a large area, some twelve square miles, near the old port of Ostia, but a little way out of Rome, as a site for that city. Mr. Andersen has had plans, most comprehensive and beautiful plans, made therefor; its great executive buildings, a library, mammoth convention hall, a post graduate International College, railway stations, a permanent exposition, a port, a capitol, the complete equipment for a model city and world center of learning.

Naturally the acquisition of this land is a great help. It is expected that the League of Nations also will generously "subscribe" to the building funds and the nations will do their part not only in erecting their own representative embassies but also in contributing toward the building of colleges, libraries and such. But beyond all that there will undoubtedly be donations, private subscriptions and the other usual and extraordinary ways of defraying the vast expenditures necessary.

To accomplish all this American methods are being employed, publicity, advertising and the rest of it. The first move is the production of a wonderful film to be shown all over the world. The Italian Government participates in this. Mr. Andersen, himself, an artist, will have general direction of the production with Sig. Carlucci, as technical director. The latter made the wonderful films "Theodora" and "Nerone" that thousands of Americans have seen in the Latin countries. The whole thing is to be staged most lavishly and with a reality seldom achieved in movieland.

The principal cities in Italy and their activities will be shown, then through photographic juggling the new city's buildings and streets (in cardboard enlargements from the plans) will be shown but with real life all about, the great port crowded with shipping, an air port with hundreds of airplanes maneuvering, thousands of people in busy streets, life, movement, color, atmosphere, and, of course the thread of a romance running through it all, the human interest appeal.

It will be a magnificent architectural movie. The plans are most complete, wonderful groups, civic centre, stadia, etc. The plans themselves are works of art. They were made in Paris fifteen years ago, under the direction of Ernest M. Hébrard, one of the leaders among French architects.

F. W. FITZPATRICK.

HOUSE FOR JAMES ROLPH, JR., BURLINGAME
Designed by Russell B. Coleman

DINING ROOM, HOUSE OF MRS. RUSSELL B. COLEMAN, BURLINGAME
Designed by Russell B. Coleman
(See page 65)

The ARCHITECT AND ENGINEER

SINCE 1905

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Architects Spare the Potomac

THE executive committee of the American Institute of Architects, meeting at the Century Club, New York City, has adopted resolutions condemning any power development, public or private, of the gorge of the Potomac river or of the Great Falls district. The proposed development, the architects hold, threatens the success of the Plan of Washington.

The committee acted upon communications addressed to Major Brehon Somervell, representative of the Federal Power Commission, by Horace W. Peaslee, chairman of the Institute's committee on the Plan of Washington, and to the executive secretary of the commission by Col. U. S. Grant, executive officer of the National Capital Park and Planning Commission.

"These letters," said the report of the meeting given out by the president of the Institute, Milton B. Medary of Philadelphia, "were formal protests against the issuance of a preliminary permit by the Federal Power Commission to a private power company for the erection of a power dam 115 feet in height at Little Falls in the District of Columbia and a similar dam at Great Falls in the State of Maryland.

"The erection of two such dams would submerge the Potomac Valley between Washington and Great Falls, and would obliterate the falls by a diversion of the water now going over them.

"The protests were based on the inevitable destruction of a great national park area deemed to be essential for the future development of Washington as the Nation's Capital—if the dams are erected."

The resolutions declare "that the executive committee, acting for the American Institute of Architects, condemns without reservation the proposed obliteration of the Potomac Valley between Washington and Great Falls, and the proposed drying up of Great Falls through the erection of hydro-electric power dams on the Potomac River."

The committee endorsed both the position of the National Capital Park and Planning Commission as stated by Col. Grant, and the protest of the Institute's Committee on the Plan of Washington, which was instructed "to use every resource at its command to defeat the accomplishment of the proposal."

The protest of the Committee on the Plan of Washington was asserted to be one of national idealism. The fight "to spare the Potomac" will, it was said, be carried to Congress.

In addition to President Medary, members of the executive committee of the Institute which voted its support to the movement against the power development, include William Emerson of Boston, first vice president of the Institute; C. Herrick Hammond of Chicago, second vice president; Frank C. Baldwin of Washington, secretary; and J. Monroe Hewlett of New York, director of the Institute. The meeting at the Century Club was also attended by Edwin Bergstrom of Los Angeles, treasurer of the Institute, and Edward C. Kemper of Washington, executive secretary.

San Francisco Planning Problems

MODERN traffic conditions and the increasing number of large buildings in the down town district of San Francisco, make it imperative for the city to give serious consideration to city planning, in the opinion of W. W. de Berard, former chief engineer of the Chicago Regional Planning Association and now associate editor of the Engineering-News Record of New York. Mr. de Berard made this statement during a recent visit to the Bay City as a guest of the Engineers' Club. He stated that he had investigated the plans under way here and expressed himself as much impressed by the farseeing vision of the men who have been working on the plans. San Francisco is one of only seven cities of this country having a regional planning association, he said.

"San Francisco is rapidly growing—this is perhaps more apparent to the visitor than to the resident," said de Berard. "The city has taken definite steps toward a solution of the

zoning and city planning problems, but much remains to be done. As an outstanding example of the city's well-matured plans, I point to your Civic Center, which is one of the finest monuments of the kind in the country. With this as an inspiration the people of San Francisco can go far in beautifying the city.

"We must now give thought to handling the crowds on the streets, as the congestion is fast becoming intolerable.

"Zoning is one of the most important projects confronting great cities. Chicago now has 50 per cent of its population living in zoned districts, and it is planned to extend the zoned section until 75 per cent are protected by restrictive ordinances.

"Aviation is becoming such an important factor, that landing fields must be located near the centers of population. In Chicago they propose a big landing field on an artificial island on the lake front and even talk of one on the roof of the new Chicago postoffice."

Air-Rights Over Tracks

IN AN address before the Western Society of Engineers, Joshua D'Esposito, who was chief engineer for the new 75-million-dollar Union Station at Chicago, declared that the air-rights over railroad lines and terminals could be utilized for building purposes much more extensively than they are at present. Mr. D'Esposito showed that such construction is practical and beneficial for the prospective builder, for the railroad and for the public generally.

"Just as the buyer of a city lot has the right to put a building up on his land," said Mr. D'Esposito, "so the buyer of an air-right from a railroad has the right to put a building up over the railroad company's tracks. The two buyers differ in that while the owner of the lot may have a basement or several of them under his building, the owner of an air-right may use his property only above the level required for the trains. In other words, the builder on an air-right must let the railroad run through his basement."

Millions of dollars worth of construction in a field now little developed is possible by the utilization of air-rights in large cities. From an engineering standpoint, almost any type of structure—commercial, industrial or residential—can be satisfactorily erected over the railroad tracks. One of the best and most expensive hotels in New York is built over the tracks. In the same city, the post office over the Pennsylvania railroad, a large exposition building, several apartments and a number of modern clubs are other examples of buildings over railroad tracks.

Views and Events

THE official cantata celebrating the Russ building has died away, the chorus has dispersed, and the conductor laid away his baton. I now propose, if I may be allowed a horrible mixing of metaphors right at the outset, to put in my minority report.

When you say that a building is the tallest and the largest west of somewhere, that its equipment is the most modern, that it contains so many tons of steel and so many yards of concrete and so many miles of pipe, the public thinks you are delivering architectural criticism. Of course none of these facts, however true and important, has the slightest aesthetic implication. It goes without saying that a bulk covering half a city block and rising to a height of thirty-one stories cannot fail, as bulk, to have a degree of impressiveness. That, however, is no virtue of the designer's; it is handed to him in the program. When we come to consider the architect's part in all this we have to ask if he has enhanced the impressiveness of the mass accorded him, and how; also if his design is relevant to our actual ways of building and thinking. To each of these questions I do not see how a seriously considered answer in the present instance can be other than No.

Certain singers in the chorus of praise (to revert to my original figure) commend its modernity; others bid New York to take a lesson on how this skyscraper business should be done.

Now if there is one thing which more than another strikes the beholder sensitive to the modern spirit, it is the musty odor of Pugin (volumes of Pugin, even in reprints, have a way of smelling musty); and it is difficult to see how his stony archaism is rendered more modern merely by being extended through some thirty stories more than the original.

As for authoritative examples of tall building treatment, it is questionable if the designers of such structures as the Shelton Hotel and the Barclay-Vesey building—to cite at random only a couple of the most conspicuous of recent examples—have much to learn from our local achievement. But of course we need not go to New York for illuminating comparison. Go out on the bay or to any other point of vantage,

where the Telephone building and the Russ building may be compared simultaneously and on equal terms. The one is alive in the composition of its masses and planes, the other cold "stepping"; the one presents a surface delicately and atmospherically modeled, the other a metallic crystallization; the one is quiet and poised in contour, the other jiggly and with a curious irritating illusion of flare at the top; in fact from every point of view the comparison seems to the disadvantage of the newer work. At close quarters the same thing remains true. The detail of the one building is fresh and vivacious, and placed on well-considered principles; that of the other, in addition to exhibiting much irrelevant erudition, is of a hard, cast-iron quality, and, in effect at least, uniformly distributed.

Meanwhile the public, which estimates architectural merit by counting stories, has a clear criterion of judgment. The Russ building holds the Pacific Coast beauty championship until some one builds to thirty-two stories.

* * *

In an article I have written on architectural criticism to appear in the December issue, I have alluded, without developing the idea, to the inadequacy of the literary approach to architecture. Now after you have become inured to the habit of writing it irritates you to find that you have merely stated an idea and forgotten to make it work; so I welcome the opportunity afforded by a bit of architectural criticism from Australia (quoted in this issue) to enlarge on the subject in advance.

Indeed, this particular criticism is an excellent example of the irrelevance of literature to architecture. The writer is speaking of the San Francisco Telephone building—and I am concerned for the moment not at all with the justice of his criticism, but entirely with his method of attack. It suggests, he says, "a man with abnormally high shoulders wrapped up in a sheet."

Well, what of it? Is a high shouldered man in a sheet necessarily an ugly form, unpleasant in either mass or profile? It may be admitted that some unfortunate infantile Hallowe'en or Ku Klux Klan experience may have left one with a "Banquo" complex and an aversion to men in sheets, but as critic it is one's business to recognize that this psychological peculiarity is not an aesthetic principle. Architecture, after all, is abstract form, to be evaluated only on grounds of aesthetic and structural propriety. Figures of speech may be used to enhance vividness of expression, but not as critical instruments. Such observations have no more bearing on architectural merit than have the faces and animals some people continually discover in rocks and trees on beauty of landscape.

The same journal also makes an anomalous stricture on the design for the new Los Angeles City Hall. After showing how equal capacity might have been obtained with greater economy, the critic avers, "The only object served is that Los Angeles City Hall comes into the skyscraper class."

Is this an unworthy object? What were the Tour de Beurre and the Mangia Tower but attempts to put Rouen and Siena respectively on the map? We could have shown Michael Angelo how to get an equal number of people into a building of much smaller volume than Saint Peter's. The Los Angeles City Hall may or may not be a good and beautiful solution of its problem, but certainly the civic aspiration which included as part of that problem the obligation "to keep up her reputation" was an age-long and legitimate one.

This protest, mind you, is not dictated by provincial patriotism. It is a matter of professional idealism. I dislike to see a fellow critic go wrong on method. I. F. M.

HIGH CLASS PUBLICATION

Editor The Architect and Engineer:

I have just looked over your October Architect and Engineer and wish at this time to express to you my sincere thanks and appreciation, for the publication of our work and also to compliment you very highly on the character of your book.

I was just making a comparison between your publication of October, 1926, and this issue is so far in advance that it is hardly necessary to make any comparison. This recent issue tells the story.

Will H. Toepke, Architect.

UNIVERSITY BUILDINGS

Architect George W. Kelham has completed plans for the new Bowles dormitory to be erected on the University Campus, Berkeley, at a cost of $350,000, this sum being donated by the late P. E. Bowles.

Plans for an animal sciences building at Davis for the University of California have been completed by Architect W. C. Hayes and a contract will be let shortly. This building is estimated to cost $275,000.

SPANISH TYPE RESIDENCE

Architect Charles E. J. Rogers of San Francisco, has completed plans for a $30,000 Spanish type home to be erected in Hillsborough for J. E. Church. Mr. Rogers has considerable other work on the boards, including two buildings in Vallejo.

PROCESS OF ELIMINATION

The word "engineer" has been eliminated from sixteen non-technical positions in the Los Angeles Municipal Engineers' Department by the Civil Service Commission. Elimination of this word and the substitution of "operator" was due to the efforts of R. W. Stewart, a director of the Los Angeles chapter of the American Association of Engineers. The word "engineer" carried the following qualifying titles before the change was made: assistant tug boat, tug boat, assistant steam, plant engineer and repair man, city hall, junior plant, senior plant, stationary steam, gas roller, steam roller, steam shovel, locomotive, Diesel electric pumping plant, hoisting and pile drive. These non-technical positions now carry the titles of assistant tug boat operator, etc.

MAY BUILD COAST PLANT

A. G. Reimold, president of the Zenitherm Co., Inc., manufacturers of a fire-proof building material, and Richard P. O'Rourke, general sales manager of the same company, recently paid San Francisco a visit in connection with a tour of the Pacific Coast.

According to Mr. Reimold the trip to the coast was undertaken with a two fold purpose, first to confer with the western representatives of the company and second to inspect sites for a proposed branch factory. "The extensive building operations involving high class construction materials constantly going forward on the Pacific Coast has led the Zenitherm Company to undertake the consideration of a Western plant," said Mr. Reimers.

PASSING OF FREDERICO D'AMATO

Frederico D'Amato, professor of architecture at Princeton University, died Oct. 1 in a New York hospital to which he had been removed after an operation for appendicitis performed in mid ocean on the steamer Aquitania. Professor D'Amato was 43 years old. During the world war he served with the Italian engineers and at its close resumed the practice of his profession in France, devoting especial attention to reconstruction work in the devastated regions near Lens and Arras. Under terms of his will, his library and other property in America has been left to Princeton University for encouragement of the study of architecture.

A 13 MONTHS CALENDAR

George Eastman, leader in the movement to get the calendar changed into thirteen months of twenty-eight days each, so that fixed holidays will come always on the same day of the week, has received indorsement from more than 500 prominent American business men.

They see that such a plan would promote regularity of business. Only habit holds us to the observance of a clumsy calendar.

ST. FRANCIS WOOD RESIDENCE

Architects Masten & Hurd, Shreve building, San Francisco, have prepared plans for an attractive Spanish home to be built in St. Francis Wood, San Francisco, for Mr. and Mrs. Harry C. Sutherlin. It will cost $30,000. The same architects have designed Spanish homes for Howard H. Taylor and J. R. Bearwald, one to cost $12,000 and the other to cost $30,000.

ONE DOLLAR A COPY

Wanted—Three August 1920 numbers of Architect and Engineer. Will pay $1.00 for each copy mailed or delivered in good condition at this office.—Adams.

COUNTRY HOUSE

Architects Weeks & Day, Financial Center building, San Francisco, are preparing plans for a Spanish type country house to be built near Santa Cruz for T. S. Montgomery of San Jose. The same architects have awarded a contract for the first unit of a mausoleum for the Mountain View Cemetery Association in Piedmont at an approximate cost of $240,000.

SEATTLE CHAPTER HONOR AWARDS

The following is a list of the Honor Awards made recently by a jury of architects to members of the Washington State Chapter, A. I. A. The report of the jury and pictures of the buildings which received distinctive recognition will be published in the December number of The Architect and Engineer:

DWELLINGS:

Detached dwellings of not more than five rooms. Honor: Chauffeur's cottage, 909 East Newton street. Harlan Thomas and Clyde Grainger, architects.

Detached dwellings of five to ten rooms. Honor: Residence of Jos. L. Carman, 1630 Blaine boulevard. Wm. J. Bain, architect. Honor: Residence of Arthur L. Loveless, 7126-55th avenue, South. Arthur L. Loveless, architect.

Detached dwellings of more than ten rooms. Honor: Residence of B. G. Garber, 937 Harvard avenue, North. Schack, Young & Myers, architects. Honor: Residence of Darrah Corbet, 300 Maiden Lane. Arthur L. Loveless, architect. Honor: Residence of Thomas Stimson, The Highlands. Chas. A. Platt, architect. Honorable mention: Residence of O. W. Fisher Jr., Broadmoor. J. Lister Holmes, architect.

MULTIPLE DWELLINGS:

Hotels and apartments under two stories in height. Honor: Shoremont Apartments, 2020 43rd avenue, North. Wm. J. Bain, architect.

Hotels and apartments over two stories in height. Honor: Olympic Hotel, 4th and Seneca. Geo. B. Post & Sons, architects.

Fraternity house, club buildings, etc. Honor: Zeta Psi Fraternity, 4702 21st avenue, Northeast. Arthur L. Loveless, architect.

COMMERCIAL BUILDINGS:

Mercantile buildings not over two stories in height. Honor: College Center Building, 47th and University way. McClelland & Pinneh, architects. Honor: Seattle National Bank. Doyle & Merriam, architects.

Mercantile buildings over two stories in height. Highest honor award: Skinner building, 5th avenue. Robt. C. Reamer, architect. Honor: Frederick & Nelson's, 5th and Pine. John Graham, architect. Honor: Architect's office, 711 Broadway North. Arthur L. Loveless, architect. Honor: Metropolitan theater. Howell & Stokes, A. Albertson & Associates, associate architects.

SCHOOLS:

Academies, colleges and universities. Honor: Anderson Hall, University of Washington. Bebb & Gould, architects.

Grade schools. Honor: John Marshall School, East 68th and Ravenne boulevard. F. A. Naramore, architect. Honor: Bryant School, 33rd avenue, Northwest and East 60th street. F. A. Naramore, architect.

PUBLIC BUILDINGS:

Bridges, viaducts. Honor: Pier of the University bridge, Daniel R. Huntington, architect.

Libraries, museums, etc. Honor: University Library. Bebb & Gould, architects. Honor: Henry Art Gallery, University of Washington. Bebb & Gould, architects.

COMMUNITY PLANNING:

Honor: The Uplands. Olmstead Bros., landscape architects. Honor: Government lock site. Bebb & Gould, architects.

NOT CLASSIFIED: Alterations:

Honor: Grant Hotel, 1108 5th avenue. Hancock & Lockman, architects.

WITH the ARCHITECTS

COMPETITION FOR OIL STATION

The Union Oil Company of California is conducting a competition for an oil station, the design to be used as a standard for future stations to be erected in various cities in the company's territory. Mr. Allison of Los Angeles is architectural adviser. It is to be regretted that more time was not given for submission of designs for this project, as there are a number of San Francisco architects who would have entered the competition had the closing date been extended. Decision of the jury is expected to be made shortly.

PASSING OF JOHN C. CHRISTY

John C. Christy, assistant engineer for the Southern Pacific Company and well known to the architectural profession on the Pacific Coast, died in San Francisco October 10. Mr. Christy was 67 years of age and a native of Pennsylvania. He graduated from the Sandy Lake Military School, and went to work for the Pennsylvania Central Railroad in 1880. In 1906 he joined the Southern Pacific. For a time he was assistant to the late William Hood, chief engineer. A widow and son survive.

GOES TO BAKERSFIELD

Edwin J. Symmes, for a number of years a practicing architect in San Francisco and president of the Alameda City Planning Commission, has moved to Bakersfield, according to announcement by Clarence Cullimore, Bakersfield architect with whom Mr. Symmes will form an architectural partnership to be known as Symmes & Cullimore. Both graduated in the same class from the University of California in the College of Architecture, and are members of the American Institute of Architects.

PASADENA THEATER

Plans are being completed by Architect B. Marcus Priteca, for a $600,000 theater for Franklin B. Cole, the playhouse to be built on the southwest corner of Colorado avenue and Hudson street, Pasadena. P. A. Palmer, formerly of San Francisco, is the contractor.

CATHEDRAL FOR SEATTLE

Working drawings are being completed by Architects Bakewell & Brown of San Francisco and E. F. Champney, of Seattle, associated, for St. Mark's Cathedral, to be erected in Seattle. It is planned to spend one million dollars on the first unit. Construction will start in January.

NAMED ARCHITECTURAL ADVISER

Architect Warren C. Perry, 260 California street, San Francisco, has been appointed architectural advisor for the closed competition which the San Francisco Stock & Bond Exchange is to conduct for a new exchange building costing $500,000.

SAN FRANCISCO BANK TO BUILD

The Canadian Bank of Commerce of San Francisco has announced that it will erect a six-story bank and office building and Architect Lewis P. Hobart has been commissioned to prepare the plans. Construction work will start early in the new year.

EDUCATIONAL TALKS ON CONCRETE

Free evening short courses, covering recent developments in design of concrete mixers and field control of concrete, will be held for engineers, architects, contractors, inspectors and other construction men in Northern California in three sessions, beginning at Sacramento on November 22, Oakland on November 29, and in Fresno on December 6, according to an announcement by A. P. Denton, district engineer of the Portland Cement Association.

These courses are given local construction men through the courtesy of the Portland Cement Association, under the auspices of the local engineering and architectural societies. Officials of the Portland Cement Association are sending an experienced representative from their research laboratory at Chicago to take charge of the sessions, which will be similar to those given last fall at the Pacific Gas and Electric Company's auditorium in San Francisco. No charge of any sort is made and the instruction is open to all interested in concrete construction.

BIG BUILDINGS FOR 1928

Several building projects running into the millions are promised for the new year. They include a $3,000,000 department store building in Oakland for the H. C. Capwell Company, Starrett & Van Vleck of New York and Ashley & Evers of San Francisco, Associated Architects; completion of Grace Cathedral, San Francisco at a cost of $3,600,000, Lewis P. Hobart, Architect; 26-story physicians' building on Sutter street, near Powell, San Francisco, Miller & Pflueger, Architects; two buildings for the University of California, Berkeley, costing $2,000,000 or more, and the proposed Shrine building in San Francisco for which a preliminary plan showing a beautiful shaft of skyscraper proportions has been made by Architect S. Heiman.

PASSES HIGH TEST

The United States Government Bureau of Standards has given a very high rating to the Samuel Cabot Company's insulating and deadening quilt for its great resistance and general efficiency. The report is made in Letter Circular No. 227 following exhaustive tests of various insulating materials.

ARCHITECT FORD BUSY

Architect Leonard H. Ford of Oakland is preparing plans for a large Class C apartment house to cost $60,000. Mr. Ford has recently awarded contracts for two factories, one in San Francisco for the Stewart Oxygen Company, and the other in West Oakland for Myer Leson.

$600,000 APARTMENT BUILDING

Architect Douglas D. Stone of Oakland is preparing working drawings for a $600,000 eight-story apartment building to be built in San Francisco for the Marion Realty Company. There will be fifty four and five room apartments.

CHURCH ARCHITECTURE CONFERENCE

A two days' conference on church architecture was held in Chicago, October 5th and 6th under the direction of the Conference of Church Bureaus and Departments of Architecture and the Home Missions Council of the Protestant Churches.

A. F. Wickes, A. I. A., of St. Louis, Mo., head of the Department of Architecture of the Disciples Church, was chairman and Rev. E. M. Conover, 1701 Arch street, Philadelphia, Pa., director of the Bureau of Architecture of the Methodist Episcopal Church, secretary.

The conference was attended by a very considerable number of architects, clergymen, denominational officers and others.

Addresses were given by Professor Watson of the University of Illinois on Acoustics; Dr. VonOgden Vogt on Art and Religion (Dr. Vogt is author of a notable book on the subject), other addresses were on the church organ, stained glass, financial methods, promoting building campaigns, etc. The following architects were especially helpful in the discussion periods: Mr. Frohman of Frohman, Robb and Little of Boston and Washington; Mr. Corbusier of Cleveland; William J. Smith, Chicago; H. F. Foltz, Indianapolis, Elmo C. Lowe, Chicago. An interesting letter from Dr. Ralph Adams Cram on architectural education was read. Stereopticon views of many modern churches and floor plans were shown. It was quite apparent that the Gothic is the prevailing style employed today.

The matter of securing well trained architects who are intelligent as to the whole architectural history of the Christian Church and who are sympathetic with the ideals and objectives of the church was discussed at length. The churchmen maintain that the architectural colleges are giving little recognition to the needs of the modern Protestant church, though some give problems on chapels for millionaires' estates, circular or octagon chapels and synagogues. The situation was rather sharply criticised in view of the apparent utter lack of sympathy on the part of the colleges with the Gothic and also from the fact that one Protestant denomination alone spent $40,000,000 on new church construction in 1926.

FUTURE SKYSCRAPER TO BE COLORFUL

Raymond M. Hood, architect of New York, in a recent newspaper statement given to Phillip Hampson, discusses the many hued skyscrapers as follows:

"Several three or four foot colored stripes running the length of a building will not suffice to color a skyscraper. The entire building will eventually have a distinct color. To color only the architectural embellishments and a few outstanding cornices and facades will appear like the rose decorations on a woman's white dress, hardly noticeable.

"New York of the future, I believe, will consist mostly of gaily colored buildings. Instead of walking down a drab stone lined street, one will be enlivened by drastic change of color schemes. No matter what the colors be, just so long as they vary, the harmony on such a scale will be a revelation. The tendency for most colors to neutralize themselves will soften most of the abruptness."

Appointment of EDWARD HYATT JR., of Riverside, as State Engineer and the creation of the division of water resources of the State Department of Public Works of California, were announced recently by Bert B. Meek, state director of public works. Mr. Hyatt entered the state service in 1914 as an engineer with the state highway commission and became a field engineer of the division of water rights in 1916.

Architect KEMPER NOMLAND and WM. McCRAY, associate, have opened an office in the Braley building, Pasadena. Mr. Nomland is a graduate from the School of Architecture of Columbia University and for the last three years has been chief draftsman and office manager for Marston, Van Pelt & Maybury, Pasadena. Mr. McCray studied architecture at the University of Pennsylvania and spent a year in Paris.

An exhibition of the architectural work of the late ARTHUR B. BENTON of Los Angeles was recently held in the School of Architecture at University of Southern California, 659 West Thirty-fifth street, Los Angeles.

EARLE B. BERTZ announces that his architectural practice will be continued under the name of Bertz, Winter and Maury, the partnership consisting of Earle B. Bertz, Albert H. Winter and Charles F. Maury. The firm will maintain offices in the Shreve building, San Francisco.

COFFMAN, SAHLBERG & STAFFORD, architects and engineers, announce removal of offices from the Forum building to larger quarters in the Plaza building, Sacramento.

E. J. SYMMES, architect for the Fernside district of Alameda, and member of the Alameda City Planning Commission, has announced his resignation and plans to permanently reside at Bakersfield.

Architect LLOYD RALLY announces the removal of his offices to 1133 Subway Terminal building, Los Angeles.

GRANTED CERTIFICATES

At a meeting of the California State Board of Architecture, Northern Division, October 25, the following were granted certificates to practice architecture: James S. Arnot, Pacific Southwest building, Fresno; Gardner A. Dailey, 425 Mason street, San Francisco; Wm. F. Gunnison, 1666 Golden Gate avenue, San Francisco; Wm. C. Mahoney, 2762 Pierce street, San Francisco; Harris Osborn, Examiner building, San Francisco; Harry J. Scott, 2340 Filbert street, San Francisco.

The following applicants were granted architects certificates at the meeting of the California State Board of Architecture, Southern District, September 29: Donald J. Lewis, 1735¾ West Fifty-second street, and William F. Mullay, 1332 West Thirtieth street, both of Los Angeles.

The following applicants were granted architects' certificates at the last meeting of the California State Board of Architecture, Southern District, Oct. 25: Frank Alexander Vigers, 6213 Glen Airy street; Cyril Provo Hubert, 1210 W. 68th street; Yoshisaku Hirose, 117 North San Pedro street, and Leon J. Corbey, 1120 West 27th street, all of Los Angeles, and Edgar V. Ullrich, La Jolla, and Ernst Raymond Carlos Billerbeck, 247 20th street, Santa Monica.

PASSING OF CHAS. T. DAVIS

Charles T. Davis, for a number of years associated with Architect C. W. McCall of Oakland, died at the emergency hospital, Oakland, the latter part of October. Mr. Davis had not been well for some time, having suffered a stroke. He was 44 years of age.

ARCHITECTS' BUILDING AT LOS ANGELES

ONE of the first buildings erected on the Pacific Coast to be devoted exclusively to the interests of the architectural profession and the building industry, has been completed in Los Angeles. There are several interesting features about this structure which lift it from the ranks of ordinary building projects and make it of outstanding interest. The building stands as a monument to the enterprise and vision of an energetic young woman who some years ago saw the need for such a structure and who develped her idea until her plans were realized. It is one of the few buildings in the country devoted exclusively to architectural and building interests and it is also one of the few buildings erected in Southern California which is of pure monolithic construction.

ARCHITECTS' BUILDING, LOS ANGELES

Miss Mary Louise Schmidt, who for nearly fifteen years has conducted the exhibit of building materials in the Metropolitan building, began six years ago to advocate the erection of this building, and largely through her efforts the site was obtained under lease and construction of the building was started in May of this year.

The Architects' building is a height-limit Class A structure and represents an investment, exclusive of the ground rent, of approximately $750,000. A group of prominent architects of the city collaborated in the design and the structure as it now stands represents the work of Dodd & Richards, who planned the Pacific Mutual and several other important business buildings of the city; Carleton Monroe Winslow, who collaborated with the late Bertram Goodhue in designing the Los Angeles Public Library; Reginald D. Johnson, whose work in residence and church design has received national recognition; Rolland Coate, who has designed many of the finest residences in Southern California, and Witmer and Watson.

It has been the endeavor of the architects to produce a true monolithic structure free of exterior ornamentation, but architecturally effective and striking in form and mass rather than detail. In this building the architects have undertaken to show what can be done with poured concrete without exterior plastering, pilasters, moldings or other ornamentation. Walls, floors, supporting columns and beams were all poured as a monolith. After the forms were removed the exterior surface was gone over with an electric grinding machine to remove the form marks and to give the concrete the desired texture. This was followed by an acid treatment for color effect, giving the building a two-toned color with the panels of a darker shade than the piers, but of the same hue.

All of the upper floors were left unfinished with the exception of the halls and corridors in order that each floor might be subdivided to meet the needs of the tenants.

In addition to demonstrating what can be done with monolithic concrete construction, the architects are taking advantage of the opportunity also to demonstrate several other muted points, particularly questions of proper lighting and proper heating. The building will be steam heated, but gas fuel will be used and exhaustive tests will be conducted to demonstrate the difference in cost of oil and gas. These tests will be run weekly throughout the summer and winter and it is believed that some interesting data will be obtained.

The entire ground floor of the building, the mezzanine floor and the basement will house Miss Schmidt's building materials exhibit. Here will be shown the most recent developments in decorative tiles, brick, stone, plaster, woodwork and other materials, as well as exhibits of modern heating and lighting equipment and many types of labor saving devices for permanent installation. The first floor of the exhibit will be laid out in streets. There will be avenues of brick houses, wooden houses and stucco houses representative of each type of structure, and in addition the exhibit will contain a large collection of architectural drawings and photographs and a reference library of floor plans and elevations.

The new building is owned by Wright-Aiken, Incorporated, headed by Preston S. Wright, who has been identified with building activities in Los Angeles for many years. The interior of the building is finished in marble and terrazzo with mahogany woodwork. From the spacious lobby three high-speed elevators will give service to the upper floors.

BOUND VOLUMES FOR SALE

Retiring San Francisco architect will sell bound volumes of his Architect and Engineer, 1906 to 1914 inclusive; cloth with leather back and corners, all in splendid condition. Price $5 each complete volume. Apply this office.

ARCHITECTS MOVE

Architects John H. Powers and John H. Ahnden, 460 Montgomery street, San Francisco, have moved to new quarters in the West Coast Life Insurance building, 605 Market street, rooms 707-8-9, San Francisco.

The MONTH'S MAGAZINES
Edited by Irving K. Morrow - Architect

THE AMERICAN ARCHITECT

September 20, 1927

TEXT

Italian Farmhouses—Passing Notes and Sketches. By *Samuel Chamberlain.*

Four articles on aspects of the Ohio Bell Telephone Company's Building, Cleveland, Ohio.

A New Type of Fire Resisting Scaffolding.

Country Club Interiors.

The Influence of Furniture on Architectural Design.

Architectural Ornament of American Origin—Featuring Ornamental Motives of New Syracuse, N. Y. Building of the New York Telephone Co. *Voorhees, Gmelin & Walker, Architects.*

PLATES

Ohio Bell Telephone Company's Building, Cleveland, O. *The Hubbell & Benes Co., Architects.* (8 plates and plans.)

Timber Point Golf Club, Islip, N. Y. *Charles M. Hart, Architect.* (4 plates and plans.)

Public Library, Philadelphia, Pa. *Horace Trumbauer, Architect.* (1 plate and plans.)

Ange Jacques Gabriel, Consulting Architect.

Dormers. Four plates in supplement.

THE ARCHITECT

October, 1927

TEXT

Samuel McIntire, Early American Architect. By *Rexford Newcomb.*

Third Pan-American Congress of Architects, Buenos Aires. By *Kenneth M. Murchison.*

> Mr. Murchison points out several good results to be expected from the Congress, but it is clear that it needed no more practical justification than the wonderful-time he himself had, going, there, and returning.

Mr. Murchison of New York says—

> some rather mean things about the new French liner, Ile de France. While Mr. Murchison habitually writes with a preternatural effervescence, it is generally about matters so provincially New Yorkian as to be of limited interest to the great world outside. In attacking the Ile de France he plays with the more dangerous fire of international complications. Having had no friend book passage on the new liner, I can not speak of the colors which have visibly unnerved Mr. Murchison. Photographs which I have seen, however, had impressed me as rather excitingly modern. Can it be that one of Mr. Murchison's gusto is losing his hold?

PLATES

The Savoy-Plaza, New York. *McKim, Mead & White, Architects.* (1 plate.)

Graduate School of Business Administration, Harvard University. *McKim, Mead & White, Architects.* (12 plates and plan.)

American Insurance Union Citadel, Columbus, O. *C. Howard Crane, Architect, Elmer G. Kiehler and Ben A. Dore, Associates.* (2 plates.)

House, Mr. Charles R. Gibson, Bronxville, N. Y. *Lewis Bowman, Architect.* (4 plates and plans.)

St. John's Church, Buffalo, N. Y. *Mayers, Murray & Phillip, Architects.* (4 plates and plans.)

Consolidated Gas Company Building, Boston, Mass. *Parker, Thomas & Rice, Architects.* (3 plates.)

THE ARCHITECTURAL FORUM

October, 1927

TEXT

Harvard Graduate School of Business Administration, McKim, Mead & White, Architects. By *Charles W. Killam.*

The Construction and Equipment of the Harvard Graduate School of Business Administration.

Old Philadelphia Interpreted Anew. By *Margaret L. Law.*

The Housing Problem in New York. By *Aymar Embury II.*

The Proof of the Pudding. By *C. Stanley Taylor.*

Salon, Hotel de Chaulnes, Paris. By *C. Hamilton Preston* (with photographs and measured drawings).

PLATES

Harvard Graduate School of Business Administration. *McKim, Mead & White, Architects.* (8 plates, plans and details.)

The Forum Studies of European Precedents. (8 photographs of loggias in Florence.)

Westminster Presbyterian Church, Lynchburg, Va. *Clark & Crowe, Architects.* (6 plates and plans.)

THE ARCHITECTURAL RECORD

October, 1927

TEXT

The Field House of the University of West Virginia. Davis, Dunlay & Barney, Architects. By *Harold Donaldson Eberlein.*

Chicago's Traffic Problems Solved by Burnham Plan. By *Anne Lee.*

Residence of Mr. and Mrs. Willard M. Clapp, Cleveland Heights, O. Frank B. Meade and James Hamilton, Architects. By *I .T. Frary.*

Nicholas Roerich. By *Claude Bragdon.*

In the Cause of Architecture—IV, Fabrication and Imagination; V. The New Yorld. By *Frank Lloyd Wright.*

PLATES

Chapel, Home for the Aged, Alhambra, Calif. *Reginald D. Johnson, Architect.* (2 plates and plan.)

St. Chrysostom's Church, Chicago. *Chester H. Walcott, Architects Bennett, Parsons & Frost, Consulting Architects.* (2 plates.)

St. Mary's Church, Castleton, N. Y. *Wilfred E. Anthony, Architect* (2 plates).

Fort George Presbyterian Church, New York. *Clarence Brazer, Architect.* (3 plates and plans.)

Community Church, East Williston, N. Y. *George W. Conable, Architect.* (1 plate and plan.)

Sacred Heart Chapel, Beacon, N. Y. *Henry J. McGill and Talbot F. Hamlin, Architects.* (4 plates and plan.)

St. Agnes Roman Catholic Church, West Chester, Pa. *Henry Dagit & Sons, Architects.* (2 plates and plan.)

JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

October, 1927

Steps and Stairs. By *Alfred M. Brooks.*

Schooling the Draftsman. By *John Taylor Boyd Jr.*

A New Enterprise of Education in the Fine Arts.

Spare the Potomac. By *Horace W. Peaslee.*

Exploiting the Land. By *Henry Wright.*

A Museum of Peaceful Arts.

The "Horrors" of Picadilly. By *"X".*

PACIFIC COAST ARCHITECT
October, 1927

TEXT

West Coast Woods Architectural Competition. Report of the Professional Adviser.

The Laguna Honda Relief Home. By *Zoe A. Battu.*

In the Realm of Ceilings. By *Zoe A. Battu.*

Architect's Law Ruling by Attorney General. By *Mark C. Cohn.*

Doors and Doorways.

PLATES

West Coast Woods Architectural Competition. (2 prize and 10 mention designs.)

Laguna Honda Home, San Francisco. *John Reid Jr., Architect.* (4 plates and plan.)

Russ Building, San Francisco. *George W. Kelham, Architect.* (5 photographs.)

Brentwood Country Club, Santa Monica, Calif. *John Byers, Architect.* (2 photographs.)

PENCIL POINTS
October, 1927

Silhouettes of American Designers and Draftsmen. IV—Frederick G. Stickel. By *Charles A. Johnson.*

Notes on the Esquisse. By *Georges Gromort.*

Strike a Blow for the Profession of Architecture.

Viollet-le-Duc's Rational Dictionary of French Architecture, Volume I. By *Thomas E. O'Donnell.*

Painless Extraction. By *Charles Kyson.*

Architectural Collaboration. By *Edgar I. Williams*

The Value of Careful Specifications. By *Verlyn A. Trussell.*

Plates in various media, including two in color and one Piranesi.

THE WESTERN ARCHITECT
October, 1927

TEXT

The Architectural Theory of Concrete Design. By *Frederick L. Ackerman.*

Treats interestingly concrete theory and possibilities, with large emphasis on the relation of forms (molds) to rational concrete design.

The Reinforced Concrete Style. By *Dr. F. S. Onderdonk.*

The Architectural Uses of Concrete. By *Irving K. Pond.*

The Shot of Acestes, 1926. By *Arthur T. North.*

Color in Architecture—IX, Color Preference and Affective Value. By *Rexford Newcomb.*

Comment—Archtectonic, Mostly. By *F. W. Fitzpatrick.*

PLATES

Sixteen Plates of Concrete Buildings.

A selection of American churches, schools, public and commercial buildings executed in concrete, along with Messrs. A. and G. Perret's churches at Le Raincy and Montmagny. It is significant that, while the French churches are eloquent of concrete in every part, there is hardly one of the American buildings which would be clearly sensed as concrete without the information in the captions, while several actually deny their construction with a complete plaster cloak involving stone jointing, moldings, and decorative details meticulously reproduced from stone sources.

INSTRUCTION IN ARCHITECTURE

The architectural profession in Southern California doubtless will be interested in the free evening courses of instruction in architecture, reinforced concrete and steel work being offered at the Frank Wiggins trade evening school, 16th and Olive streets, Los Angeles. The instruction is given by M. T. Cantell, L. R. I. B. A., a certified architect and engineer, and the author of several text books on the subject. A special class is about to commence for those who wish to make a study of reinforced concrete and steel construction.

BEL-AIR BAY CLUB

Alphonzo E. Bell of Los Angeles is planning and preparing to build the Bel-Air Bay club as a part of the Bel-Air enterprise in Los Angeles. Elmer Grey and Mark Daniels are both well known California architects associated in this work. The club has issued a prospectus, the text of which was written by Edward F. O'Day of San Francisco, the printing being done by Young & McCallister of Los Angeles, assisted by John Henry Nash of San Francisco.

OCTOBER MEETING, WASHINGTON CHAPTER

In response to the call for the first regular Washington State Chapter meeting of the winter season, an unusually large number of members assembled at the College Club, Seattle, on the evening of Thursday, October 6. This included several from Tacoma, who were a welcome addition to the gathering.

At the conclusion of the dinner, the minutes of regular and special meetings were read by the secretary. These included the account of the June meeting at Tacoma.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

of The Architect and Engineer, published monthly at San Francisco, California, for October 1, 1927.

State of California, County of San Francisco, ss.: Before me, a Notary Public, in and for the state and county aforesaid, personally appeared W. J. L. Kierulff, who, having been duly sworn according to law, deposes and says that he is the business manager of The Architect and Engineer, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher: The Architect and Engineer, Inc., 1662 Russ Building, San Francisco, Calif.
Editor: F. W. Jones, 1662 Russ Building, San Francisco, Calif.
Managing Editor: None.

Business Manager: W. J. L. Kierulff, 1662 Russ Building, San Francisco, Calif.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

W. J. L. Kierulff, 1662 Russ Building, San Francisco, Calif.
F. W. Jones, 1662 Russ Building, San Francisco, Calif.
L. B. Penhorwood, 1662 Russ Building, San Francisco, Calif.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is ..... (This information is required from daily publications only.)

W. J. L. KIERULFF, President.

Sworn to and subscribed before me this 27th day of September, 1927.

(Seal) MARY D. F. HUDSON.

My commission expires December 22, 1928.

SOCIETY and CLUB MEETINGS

NORTHERN CALIFORNIA CHAPTER

The annual meeting of the Northern California Chapter, A. I. A., was held in the rooms of the San Francisco Architectural Club on Tuesday, October 18. The meeting was called to order by President John Reid Jr., at 8 p. m., the following members being present:

Jas. H. Mitchell	Fredk. H. Reimers
Lester Hurd	Wm. I. Garren
Ralph Wyckoff	E. G. Bangs
Wm. K. Bartges	H. H. Gutterson
Wm. B. Farlow	Harris Allen
Wm. Arthur Newman	John Reid Jr.
A. Appleton	Geo. W. Kelham
Fredk. H. Meyer	E. S. Norberg
Morris M. Bruce	J. S. Fairweather
Ernest Coxhead	Chas. F. Masten
Warren C. Perry	Albert J. Evers

The president read his annual report which was ordered received and placed on file.

The secretary read the annual report of the board of directors and of the secretary-treasurer, both of which were ordered received and placed on file.

A committee, consisting of Jas. H. Mitchell, H. H. Gutterson and Wm. I. Garren, was appointed to audit the Chapter's accounts and report at the next meeting.

Fred H. Meyer, chairman of the Committee on Legislation and Building Laws, read a very complete report, showing activity in connection with other organizations in regard to the Inspection Department of the San Francisco Board of Public Works and with state building laws.

Harris Allen, chairman, Committee on Public Information and Entertainment, made a comprehensive report showing that the honor awards constituted a splendid medium for public information; also a brief outline of the year's entertainments.

Wm. C. Hays, chairman of the Membership Committee, being absent, reported through the president a splendid growth during the year for the chapter, especially in Institute memberships, and recommended extended activity for the future.

Warren C. Perry, chairman of the Committee on Education and Library, read the report of this committee. The library at the club is in good condition except for three missing volumes. Some small repairs are recommended by the committee. A checked list of books is appended to the report. Education at the club is at present functioning well but some additional courses, especially in history, may be advisable at a not far-distant date. Mr. Perry also reported regarding the School of Architecture at the University of California, of which he is director.

John Reid Jr., chairman of the Committee on Competitions, read the report of this committee, reporting only one projected competition, which did not materialize.

Ernest Coxhead, chairman of the Committee on City Planning, read a report showing some activity in co-operation with other bodies and making recommendation for future activity.

George Kelham, chairman of the Committee on Industrial Relations, presented a report of this committee, showing co-operation with the Industrial Association throughout the year and the important part the chapter has had in industrial relations of the building trades.

Earle B. Bertz, chairman of the Exhibition Committee, being absent, the report of the committee was presented by Mr. Henry Gutterson. The committee can point with pride and the chapter find great satisfaction in the exhibition last May in Golden Gate Park Museum and in the honor awards, culminating in the meeting at Temple Emanu-El on August 31. The president commended especially the activities of this committee.

Wm. Mooser, chairman of the Committee on Uniform Code, being absent, Jas. H. Mitchell read the report of the committee, showing great progress and recommending continuance of the committee.

The special Committee on Quantity Surveys reported progress through Wm. I. Garren.

Mr. Allen, chairman of the Committee on Public Information, reported progress in the matter of group advertising.

The amendment proposed at last meeting and regularly published was brought up for consideration. The amendment reads as follows: "The annual meeting of this chapter shall be held on the last Tuesday in October." Moved, seconded and carried.

The report of the nominating committee was read, as follows: President, Harris Allen; vice-president, Henry H. Gutterson; secretary-treasurer, Albert J. Evers; directors, for unexpired term of Henry H. Gutterson, Earle B. Bertz (2 years); John Reid Jr. (3 years); James S. Dean (3 years).

Mr. Allen made a brief address and amid great applause took over the chair gracefully offered by Mr. Reid.

The chapter passed a vote of thanks to the outgoing officers for their devoted services to the chapter during the year.

Discussion of Education Fund was brought up by Mr. Fairweather. Suggested that Education Committee make recommendations to be passed upon by the Executive Committee. No action was taken.

Mr. Norberg showed Plumbing Symbols as published by the Master Plumbers Association, suggesting that the chapter take some action. The president suggested that it be referred to the proper committee for report at next meeting.

The secretary read a communication from Chester Miller, president of the Alameda County Society of Architects, offering close co-operation of his organization with the chapter for next year. The communication was referred to the new board of directors.

A communication from E. T. Thurston regarding building inspection was referred to the Committee on Legislation.

Harris Osborn made a brief address.

Respectfully submitted,
ALBERT J. EVERS,
Secretary.

JOINT MEETING OF CHAPTER AND CLUB

A joint meeting of the Southern California Chapter of the American Institute of Architects and Los Angeles Architectural Club was held Tuesday evening at the Artland Club in the Fine Arts building. A total of eighty-eight members of the two organizations were present.

It was announced that Mayor Cryer had appointed Donald B. Parkinson to a vacancy on the municipal art commission occasioned by the death of Arthur B. Benton. The chapter adopted a resolution commending the mayor for his selection and requesting the city council to confirm the appointment.

The American Institute of Architects is preparing a program for the giving of honor awards by the various chapters throughout the country similar to the custom of the Southern California chapter. The program will probably be approved and authorized at the December meeting of the board of directors.

Capt. W. Sowers, field secretary of the National Park Commission, spoke on the advantages of the development of state parks in California, and Dr. Alexander of Scripps College gave an address on the philosophy of building. H. C. Crawford, winner of the Davis Traveling Scholarship, exhibited the sketches he prepared while studying in Europe. A. M. Edelman, secretary of the State Board of Architecture, spoke on the activities of the board in the enforcement of the law governing the practice of architecture in accordance with recent decisions of the attorney general. The Chapter adopted a resolution of condolence on the death of Norman D. Bishop, wrought iron manufacturer.

The members of the Chapter and guests who attended the meeting were: Edwin Bergstrom, A. R. Brandner, Albert C. Martin, Stanley Willard, H. W. Bishop, Chas. S. Cobb, Robert B. Stacy-Judd, Chas. H. Kyson, J. C. Cassiday, J. T. Zeller, T. L. Putnam, A. N. Knox, H. O. Sexsmith, C. R. Johnson, A. C. Weatherhead, A. L. Acker, R. C. Flewelling, D. C. Allison, Fitch H. Haskell, Paul O. Davis, Geo. P. Hales, H. L. Pierce, Lloyd Rally, Sumner Hunt, Lee Fuller, Donald D. McMurray, A. M. Edelman, F. P. Davis, E. H. Cline, D. J. Witmer, C. H. Cheney, A. E. Rea, H. M. Patterson, R. D. MacPherson, H. C. Chambers, Myron Hunt, L. H. Lippiatt, H. Roy Kelly.

ANNUAL MEETING W. S. S. A.

The Washington State Society of Architects held its monthly meeting October 6th, at the Hollywood Tavern, Seattle, among those present being Mr. R. M. Thorne from Renton, a new member in the Society. President Buchinger named Jas. E. Blackwell, Harry H. James, W. C. Jackson, L. L. Mendel and Clayton D. Wilson nominating committee to select candidates for the annual election of officers to be held December 1.

The application of Newton C. Guantt of Yakima was presented to the executive board for membership.

ARCHITECT'S LEAGUE NEW OFFICERS

John J. Roth was elected president of the Architects' League of Hollywood at the annual business meeting October 5. Ralph C. Flewelling was elected vice-president and Horatio W. Bishop was re-elected secretary. Charles H. Kyson, retiring president of the league, was elected a director for one year to fill the unexpired term of Ralph C. Flewelling.

ENGINEERS CLUB, LOS ANGELES

On Thursday evening, October 20th, the Engineers club of Los Angeles held its annual meeting in the main dining room of the City club. Three hundred and seventy-five engineers sat down to dinner at 6:30. In the absence of President Frank H. Olmsted, Mr. John E. Hodge, first vice-president presided. Community singing followed the dinner, and short talks were made by several prominent members of the club.

David C. Moore and Walter Gordon Clark emphasized the duty of the engineer, not only to himself but to the public, to cease "hiding his light under a bushel" both individually and collectively. Myron Burr gave a brief history of the formation of the Engineers club. O. M. Souden, Robert Linton and Robert Boyd spoke of the value of the club to the engineering profession, to the individual members and to the community in general.

J. E. McDonald gave the report of the membership committee. E. L. Mayberry, reporting for the housing committee, described the possibilities of fitting up quarters for the Engineers club. Mr. Mayberry presented a plan which he had prepared, utilizing about 5200 square feet of floor space and providing for a lounging room 34'x37', a dining room 34'x37', a library and writing room, a card room, and public and private offices for a secretary.

It is estimated that about $10,000 would be required to fit up and furnish the quarters described. A number of members have subscribed $100 each toward a housing fund for the purpose of securing such quarters, and several corporations having employes who are members or prospective members of the club, have generously subscribed from $100 to $500 each to this fund. Undoubtedly the Engineers club soon will have a suitable home in which to continue to grow.

The annual election of directors of the club by letter ballot of the membership resulted in the election of the following directors for the coming year: John E. Hodge, O. M. Souden, Franklin D. Howell, Paul Overton, S. E. Gates, H. L. Payne, Raymond Hill, David C. Moore and J. E. McDonald. These directors elected officers for the club as follows: President, S. E. Gates, first vice-president, O. M. Souden; second vice-president, Franklin D. Howell; secretary-treasurer, David C. Moore.—W. C. H.

$15,000 FOR A SLOGAN

The National Lumber Manufacturers' Association is offering $15,000 in prizes for a slogan about wood. The slogan is to be used in an extensive educational campaign which is now being prepared by the manufacturers of American standard lumber, in the National Lumber Manufacturers' Association. Those wishing to enter the competition, should write to the Association, at P. O. Box 811, Washington, D. C., for a free copy of the booklet, The Story of Wood, which will give full particulars. The contest closes December 15th. The prizes will be awarded as follows: First prize $5,000; second prize, $2,000; third prize, $1,000; four prizes (each) $500; fifty prizes (each, $100).

YOSEMITE COTTAGES

Architect Theodore Spencer of Berkeley has been commissioned to prepare plans for a number of cottages to be built near the new Ahwahnee hotel in the Yosemite valley.

Valona Slide Conquered With Concrete Slope Paving

OVER AN ACRE OF CEMENT CONCRETE NOW WILL KEEP THE CONTRA COSTA HLLS FROM SLIDING OVER THE STATE HIGHWAY AT VALONA. THE NEW $8,000,000 CARQUINEZ HIGHWAY TOLL BRIDGE APPEARS IN THE VIEW.

At last the Valona slide in the Contra Costa hills, California, appears to be conquered. For years it has been a source of trouble and at one time the slide carried the state highway pavement over a cliff for a fall of 100 feet to the tracks of the Southern Pacific railroad which skirt the base of the hill.

The formation at this point, a short distance west of Crockett, and the south approach of the Carquinez highway toll bridge, appears to have no solid foundation and when well saturated with water during the winter, moves in a solid mass.

The sliding hill has been given a 2-to-1 slope, and after being smoothed by hand work was paved with 2 to 2¼ inches of gunite.

Gunite is a very fine mix of sand, cement and water, laid under air pressure by a cement gun. The sand and cement are mixed under pressure and led to the job through a hose, also under pressure. Just before it leaves the nozzle the dry mix receives the water, properly proportioned. Eight sacks of cement were used to the cubic yard.

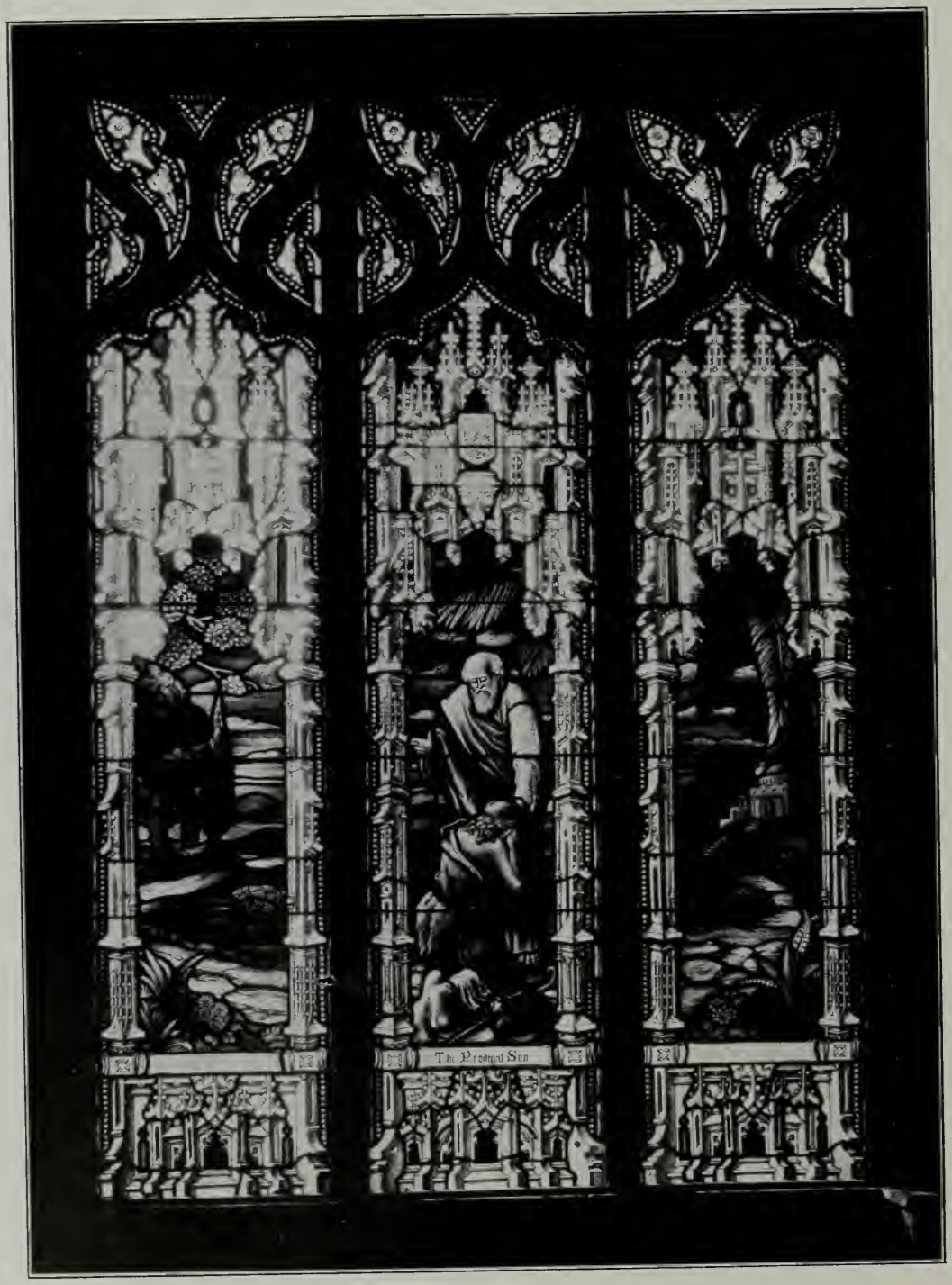
Before placing the gunite, tile drains were installed. The pavement was placed in rectangular slabs, separated with premoulded bituminous composition strip, one-half inch thick. The slabs were reinforced with wire fabric, No. 8 gauge, spaced 4 inches apart. The reinforcing was held in place by means of concrete or metal chains. Each slab was attached to the subgrade with 4 cement concrete anchors, 6 inches in diameter and 2 feet 6 inches long, reinforced with deformed bars. To cure the slope it was covered with burlap and uniformly sprinkled with a fine mist for four days.

The whole slope contains 44,560 square feet, or slightly more than an acre of concrete.

POSTER COMPETITION

The National Society of the Colonial Dames of America is co-operating with the Bureau of Education, U. S. Department of the Interior, in its endeavor to promote literacy in the United States. To this end, the Colonial Dames are conducting a competition to secure a poster that will instantly arrest the eye and convey to illiterate as well as literate citizens the advantage and desirability of being able to read, write and speak the English language.

The competition will end January 15, 1928. Announcement of the winners and distribution of prizes will be made February 1, 1928. Prizes will be awarded as follows: 1st prize, $300; 2nd prize, $150; 3rd prize, $50, and five honorable mentions. Copies of the requirements may be had upon application to Poster Secretary, 120 Bellevue Place, Chicago, Illinois.



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Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

The wage scale is that in effect January 1, 1927, for a period of one year. Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
Common, $32.00 per 1000 laid.
Face, $70.00 per 1000 laid.
Brick Steps, using pressed brick, $1.25 lin. ft.
Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
Brick Veneer on frame buildings, 70c sq. ft.
Enamel, $115.00 per 1000, f.o.b. cars.
Common, f.o.b. cars, $11.50, plus cartage.
Face, f.o.b. cars, $48.00 per 1000, carload lots.

HOLLOW TILE PIREPROOFING (f. o. b. cars in carload lots).

12x12x3 in.	$ 90.00 per M
12x12x4 in.	100.00 per M
12x12x6 in.	145.00 per M
12x12x8 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f. o. b. cars in carload lots).

8x11½x5½	$100.00
6x11½x5½	74.00

Hod carriers, $7.00 per day.
Bricklayers, $11.00 per day.

Composition Floors — 18c to 50c per sq. ft. In large quantities, 18c per sq. ft. laid.
Rubber Tile—70c per sq. ft.

Terazzo Floors—60c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.30 per ton
No. 4 rock, at bunkers	1.30 per ton
Niles pea gravel, at bnkrs.	2.70 per ton
Washed gravel, at bnkrs.	1.40 per ton
Niles top gravel, at bnkrs.	1.50 per ton
City gravel, at bunkers	1.30 per ton
River sand, at bunkers	1.15 per ton
Delivered bank sand	1.00 cu. yd.

SAND
Del Monte, $1.75 to $3.00 per ton.
Fan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
Belgian cement, $2.30 per bbl.
Cement, $2.51 per bbl. in paper sks.
Cement (f.o.b. Job, S.F.), $2.71 per bbl.
Cement (f.o.b. Job, Oak.), $2.71 per bbl.
Rebate of 10 cents bbl. Cash in 15 days.
Atlas "White" .....$ 8.75 per bbl.
Forms, Labors average 25.00 per M
Average cost of concrete in place, exclusive of forms, 30c per cu. ft.
4-inch concrete basement floor.....13c to 14c per sq. ft.
4½-inch concrete basement floor.....14c to 15c per sq. ft.
2-inch rat-proofing....6½c per sq. ft.
Concrete Steps.....$1.26 per lin. ft.
Wage—

Concrete workers	$5.50 per day
Cement finishers	9.00 per day
Laborers	5.00 per day

Dampproofing—
Two-coat work, 20c per yard.
Membrane waterproofing—4 layers of P.B. saturated felt, $4.50 per square.
Hot coating work, $2.00 per square.
Wage—Roofers, $8.00 per day.

Electric Wiring—$3.00 to $9.00 per outlet for conduit work (including switches).
Knob and tube average $2.25 to $5.00 per outlet, including switches.
Wage—Electricians, $9.00 per day; fixture hangers, $8.00 per day.

Elevators—
Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
Sand, 60 cents; clay or shale, $1.25 per yard.
Teams, $10.00 per day.
Trucks, $21 to $27.50 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
Ten-foot balcony, with stairs, $100.00 per balcony.

Glass (consult with manufacturers)—
Double strength window glass, 15c per square foot.
Quartz Lite, 50c per square foot.
Plate, 80c per square foot.
Art, $1.00 up per square foot.
Wire (for skylights), 25c per square foot.
Obscure glass, 25c per square foot.
Note—Add extra for setting.
Wage—Glaziers, $8.00 per day.

Heating—
Average, $1.80 per sq. ft. of radiation, according to conditions.
Wage—Steamfitters, $9.50 per day.

Iron — Cost of ornamental iron, cast iron, etc., depends on designs.
Wage — Iron workers, bridge and structural, $11.00 per day.
Architectural iron workers, $9.00 per day.

Lumber (prices delivered to bldg. site)
Common, $25.00 per M (average).
Common O.P. select, average, $32.00 per M.

Flooring—

1 x 6 No. 3—Form lumber	$19.00 per M
1 x 4 No. 1 flooring	52.00 per M
1 x 4 No. 2 flooring	51.50 per M
1 x 4 No. 3 flooring	35.00 per M
1 x 6 No. 2 and better flooring	45.00 per M
1¼ x 4 and 6 No. 2 flooring	55.00 per M

Slash grain—

1 x 4 No. 2 flooring	38.00 per M
1 x 4 No. 3 flooring	36.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90c per bdle.

Hardwood Flooring (delivered to building)—

13/16x3¼" T & G Maple	$135.00 M ft.
1 1/16x2¼" T & G Maple	145.50 M ft.
⅞x3½ sq. edge Maple	132.50 M ft.

	13/16x2¼" T&G	⅝x2" T&G	5/16x2" Sq. Ed
Clr. Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel. Qtd. Oak	150.00 M	122.00 M	131 M
Clr. Pla. Oak	155.00 M	110.00 M	113 M
Sel. Pla. Oak	132.00 M	79.00 M	97 M
Clear Maple	147.00 M	101.00 M	
Laying & Finishing	16c ft.	15c ft.	13c ft.

Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$4.20
2 ply per 1000 ft. roll	6.30
3 ply per 1000 ft. roll	9.60
Sash cord com. No. 7	$ 1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	60.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $110 per 1000.
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel), $7.50 and up, each.
Doors, including trim (five panel), $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $6 each.

Dining room cases, $7.50 per lineal foot.
Labor — Rough carpentry, warehouse heavy framing (average), $12 per M.
For smaller work, average, $25 to $32 per 1000.
Wage—Carpenters, $9.00 per day.
Laborers—$5.50 per day.

Marble—(Not set), add 40c to 60c per ft. for settling.

Alaska	$1.15 sq. ft.
Columbia	1.15 sq. ft.
Pink Lepanto	1.40 sq. ft.
Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.

Floor Tile — Set on any of above except Verde Antique $1.10 sq. ft.

Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.
Hauteville	2.25 sq. ft.
French Grey	1.40 sq. ft.

Wages — Marble setters, $9.50 per day; helpers, $6.50 per day; marble polishers and finishers, $7.00 per day.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard

Turpentine, 88c per gal. in cans and 73c per gal. in drums.
Raw Linseed Oil....89c gal. in bbls.
Boiled Linseed Oil ....92c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per Lb.
1 ton lots, 100 lbs. net weight	12¼c
500 lb. and less than 1 ton lots	12½c
Less than 500 lb. lots	13c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	12¼c
500 lb. and less than 1 ton lots	12½c
Less than 500 lb. lots	13c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13¾c
500 lb. and less than 1 ton lots	14c
Less than 500 lb. lots	14½c

Wage—Painters, $9.00 per day.
Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14″ long (average), $6.00 each.

Plastering—Interior—

1 coat, brown mortar only, wood lath	$0.43 yd.
2 coats, lime mortar hard finish, wood lath	.55 yd.
2 coats, hard wall plaster, wood lath	.60 yd.
3 coats, metal lath and plaster	1.10 yd.
Keene cement on metal lath	1.23 yd.
Ceilings with ¾ hot roll channels metal lath	.79 yd.
Ceilings with ¾ hot roll channels metal lath plastered	1.63 yd.
Single partition ¾ channel lath 1 side	.74 yd.
Single partition ¾ channel lath 2 sides 2 inches thick	2.62 yd.
4-inch double partition ¾ channel lath 2 sides	1.42 yd.
4-inch double partition ¾ channel lath 2 sides plastered	2.94 yd.

Plastering—Exterior—

2 coats cement finish, brick or concrete wall	1.03 yd.
2 coats Atlas cement, brick or concrete wall	1.28 yd.
3 coats cement finish No. 18 gauge wire mesh	1.80 yd.
3 coats Atlas finish No. 18 gauge wire mesh	2.08 yd.
Wood lath, $4.00 per 1000.	
2.5 lb. metal lath (dipped)	.20 yd.
2.5 lb. metal lath (galvanized)	.24 yd.
3.4 lb. metal lath (dipped)	.26 yd.
3.4 lb. metal lath (galvanized)	.30 yd.

¾-inch hot roll channels, $76 per ton.
Hardwall plaster, $14.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $17.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15.
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.
Wages—Plasterers, $11 to $12 per day.
Wages—Lathers, $8.50 to $9 per day.
Wages—Hodcarriers, $7.50 to $8 per day.

Composition Stucco—$1.60 to $2.00 per sq. yard (applied).

Plumbing—
From $58.00 per fixture up, according to grade, quantity and runs.
Wage—Plumbers, $9.50 per day.

Roofing—
Five-ply tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $26.00 to $40.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Pabco, 10-yr. roof, $8.50 per sq.
Pabco, 20 year, roof, $11.50 per sq.
Recoat, with Gravel, $3.00 per sq.
Wage—Roofers, $8.00 per day.

Sheet Metal—
Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—
Copper, $1.25 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).
Wage—Sheet metal workers, $9.00 per day.

Stone—
Granite, average, $6.00 sq. ft. in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.
Wage—Stone cutters, $8.50 per day Stone setters, $9.00 per day.

Store Fronts—
Copper sash bars for store fronts, corner, center and around sides, will average 70c per lineal foot.
Note—Consult with agents.

Steel Structural—$92.50 per ton (erected) This quotation is an average for comparatively small quantities.
Light truss work higher; plain beam and column work in large quantities, less.
Cost of steel for average building (erected), $90 per ton.

Reinforcing—
Base price for car load lots, $2.80 per 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.
Wage—Housesmiths, $9.00 per day.

Steel Sash—
All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 80c per foot, laid.
White floor, 80c per foot, laid.
Colored floor tile, $1.00 per ft., laid.
Promenade tile, 80c per sq. ft., laid.
Wage—Tilesetters, $10.00 per day.

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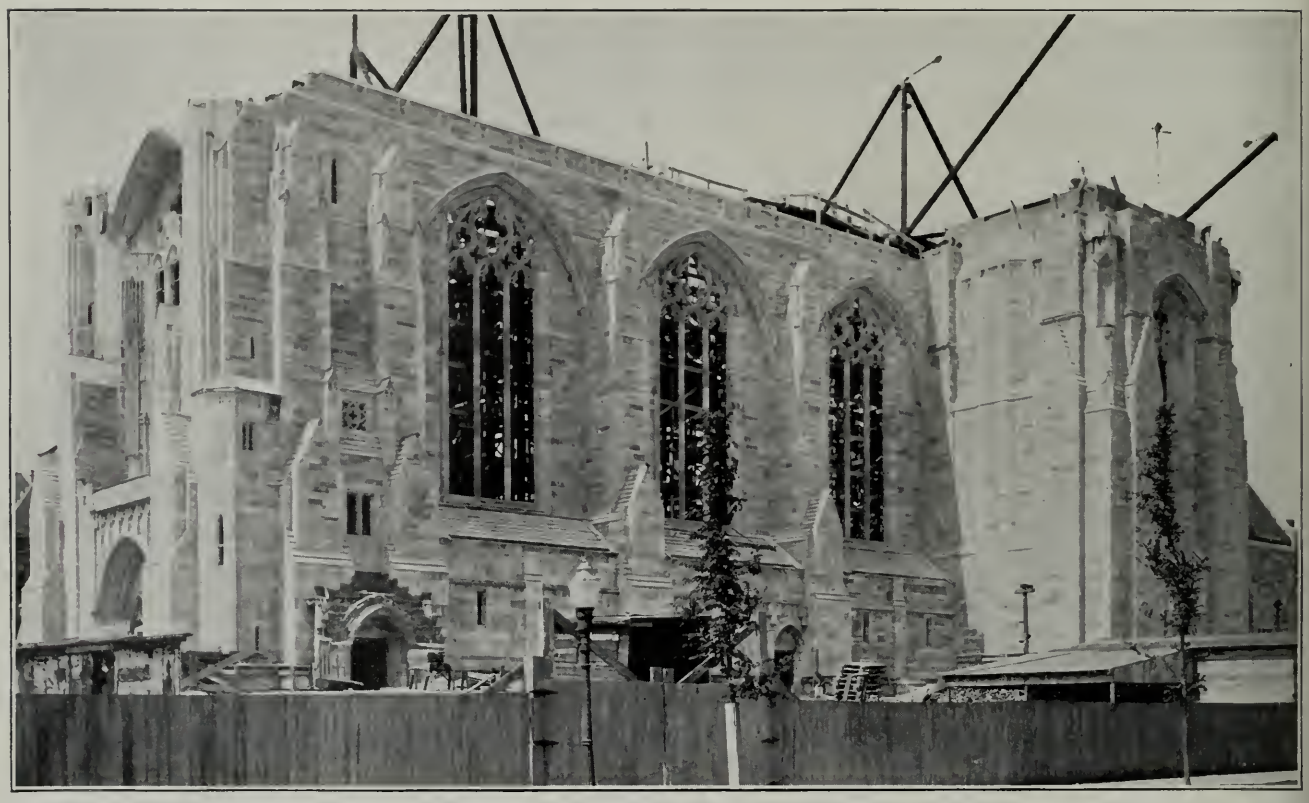

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The ARCHITECT AND ENGINEER

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HONOR AWARDS WASHINGTON STATE CHAPTER A-I-A

By Arthur L Loveless

IN SPONSORING an Honor Award Competition in Seattle, the Washington State Chapter is only following the precedent established by other Pacific Coast Chapters. The Institute itself is now considering the possibility of undertaking annual contests of this sort in each chapter, a proceeding which should be conducive to a publicity readily obtained and effective in its results.

Quite aside from the interests such contests arouse in the general public, they should be stimulating to the members of our profession. An architect is often inclined to look with a sympathetic eye, not only upon his own work, but upon the work of his architectural friends, and he is therefore apt to overlook faults of design which are very apparent to the critical eye of a juror who passes upon architectural merits of the building, viewed from this light. Buildings he has thought fairly interesting, may disclose, upon careful analysis, quite obvious faults, while other buildings he has regarded indifferently may possess heretofore undiscovered merits.

One point will be apparent to those who follow jury reports of these judgments, and that is that simplicity of design has appealing force, often far outweighing the use of rich materials and elaborate ornament. Contests of this nature should have, therefore, a wholesome effect upon designers, opening their eyes to the value of restraint, and calling their attention to the fact that good mass and interesting fenestration constitute the backbone of good architecture. Of course, that elusive and indefinable quality of charm, plays an all important part, over-riding often consideration of design.

The jury report in full:

TO THE EXECUTIVE COMMITTEE WASHINGTON STATE CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS:

The Jury of Honor Awards for the year 1927, appointed by the Washington State Chapter of the American Institute of Architects, namely: Earl N. Dugan, Tacoma, Washington State Chapter; Herman Brookman and Morris H. Whitehouse, Portland, Oregon, Oregon Chapter, convened at Seattle from October 17th to 19th inclusive, beg to report as follows:

The people of Seattle should feel proud of the architectural achievements and progress made in the design-

PIER OF LATONA BRIDGE, SEATTLE
Daniel R. Huntington, Architect

ing of new buildings in that city in the past five years. A large portion of the new work is of a fine character, expressing simplicity, dignity and honesty of construction. Every effort should be made to continue the process of beautifying this great western seaport.

The public should be brought to realize the aesthetic, and, in most instances, impartial and disinterested value of an architectural society in the community, composed of men of long experience in the oldest of the arts and sciences, that of building human habitations. Construction work aggregating tens of millions of dollars is annually done in this country entirely without the services of an architect. In the vast majority of these cases, the owner is a heavy loser, either immediately or in the long run. A poorly planned, poorly designed and improperly constructed building is a bad investment for the owner, either in relation to the immediate requirements for which the building is erected, or from the standpoint of economical maintenance and subsequent re-sale. It costs no more to build a beautiful building than an ugly one.

The outstanding achievements are in the field of commercial buildings, as is quite natural, Seattle being primarily a bustling, commercial city. Such structures as the Skinner building, the exterior of the Seattle National Bank and the Olympic Hotel would reflect honor on any city. In other fields, however, the quality of work is not lagging behind, the city possesses many charming and distinguished homes, notably the Thomas Stimson and Darrah Corbet residences. The metamorphosis that the University campus is undergoing is especially to be commended. When all the old buildings have been replaced by work like the Library and Anderson Hall, the University of Washington campus will rival some of the finest in the East.

GOVERNMENT LOCK-SITE, SEATTLE
Bebb and Gould, Architects

In reviewing and commenting upon the gratifying progress in Seattle's development, this jury wonders whether all this fine work, commercial, municipal and domestic, is being done with some co-ordinated effort to tie all these new buildings together in a scheme which, when completed, will take the best advantage of the extraordinary beauty of the natural setting of the city, clustered, as it is, among its hills, lakes and the Sound. In Cleveland, Detroit, Kansas City and numerous other places, thorough and exhaustive studies have been made of the city plan, with the thought of developing, first of all, great civic centers from which wide arterial boulevards radiate to the various residential districts and the state highways; secondly to set aside proper parks and school districts, and lastly, to co-ordinate the best efforts of the architectural talent of each city, so that in the future the distinctive new buildings may be located to the best advantage, that their beauty will not be lost or hidden among buildings of an inferior character. Seattle has a natural setting for a future city of great beauty, and we hope that its people are looking forward to that attainment.

Much can be learned from a study of the manner in which European cities handle their waterfronts, which are not only vastly more beautiful than ours, but often more practical and more serviceable and better equipped. The work that has been done in Chicago in the past twenty years in filling in some of its lake front and using this ground for such nationally known splendors as the Field Museum, the Chicago Stadium and Grant Park, are a revelation.

With a clean-cut, straightforward and beautiful plan as a basis to direct and influence future operations, the importance of reputable and competent architectural advice should be stressed in the design of all buildings, large and small, and, if possible to have the designs for all important structures, monuments, and certainty all buildings of a public nature, passed upon and approved by an architectural commission, as is now done in every large city in Europe. Our buildings now have to measure up to an established standard of structural strength, hygiene and public welfare. Why not to a standard of beauty?

In specific reference to the awards, the jury wishes to make the following comments:

The Highest Honor Award is given to the Skinner building, on Fifth avenue, of which Robert C. Reamer was the architect, for excellence of plan, simplicity, dignity and beauty of the exterior, and the honest use of material in well designed and well executed detail. It was with regret that the jury saw the arrow electric sign which mars the beauty of the building.

In domestic work we wish to make special mention of the Darrah Corbet residence, by Arthur L. Loveless, and the Thomas Stimson residence, by Chas. A. Platt, both of which are outstanding.

The award to Doyle and Merriam for the Seattle National Bank was made for the exterior design of this building, only.

In connection with the award to the College Center building, it is to be regretted that the iron work on this building was not better executed. The jury also feels that the provisions made for future electric signs on this building are objectionable. When these signs are erected they will mar the present design of this building.

The award to John Graham, architect for the Frederick & Nelson store building, was made for the excellence of the plan and the spacious working facilities and arrangements within.

It is gratifying to know that architects and engineers collaborate on the municipal bridges and government locks.

Regarding the awards made for regional planning, such as in the Broadmoor and Uplands districts, extreme care should be exercised in the selection of suitably designed buildings for these well laid out tracts, otherwise the benefits derived from such planning will be largely lost. This jury does not feel that all of the new homes already erected in these districts measure up to the high standard of the landscaping.

Finally, we wish to express our regret that in three types of work so closely allied to modern life, and so vitally important in the development of a beautiful city, namely, churches, factories and automobile service stations, no buildings were found worthy of an award.

Following is a list of the awards:

DWELLINGS:

Detached dwellings of not more than five rooms. Honor: Chauffeur's cottage, 909 East Newton street. Harlan Thomas and Clyde Grainger, architects.

Detached dwellings of five to ten rooms. Honor: Residence of Jos. L. Carman, 1630 Blaine boulevard. Wm. J. Bain, architect. Honor: Residence of Arthur L. Loveless, 7126-55th avenue, South, Arthur L. Loveless, architect.

Detached dwellings of more than ten rooms. Honor: Residence of B. G. Garber, 937 Harvard avenue, North. Schack, Young & Myers, architects. Honor: Residence of Darrah Corbet, 300 Maiden Lane. Arthur L. Loveless, architect. Honor: Residence of Thomas Stimson, The Highlands. Chas. A. Platt, architect. Honorable mention: Residence of O. W. Fisher, Jr., Broadmoor. J. Lister Holmes, architect.

MUTIPLE DWELLINGS:

Hotels and apartments under two stories in height. Honor: Shoremont Apartments, 2020 43rd avenue, North. Wm. J. Bain, architect.

Hotels and apartments over two stories in height. Honor: Olympic Hotel, 4th and Seneca. Geo. B. Post & Sons, architects.

Fraternity house, club buildings, etc. Honor: Zeta Psi Fraternity, 4702 21st avenue, Northeast. Arthur L. Loveless, architect.

COMMERCIAL BUILDINGS:

Mercantile buildings not over two stories in height. Honor: College Center Building, 47th and University way. McClelland & Pinneh, architects. Honor: Seattle National Bank. Doyle & Merriam, architects.

Mercantile buildings over two stories in height. Highest honor award: Skinner building, 5th avenue. Robt. C. Reamer, architect. Honor: Frederick & Nelson's, 5th and Pine. John Graham, architect. Honor: Architect's office, 711 Broadway North. Arthur L. Loveless, architect. Honor: Metropolitan theater. Howell & Stokes, A. Albertson & Associates, associate architects.

OFFICE OF ARTHUR L. LOVELESS, SEATTLE
Arthur L. Loveless, Architect

SCHOOLS:

Academies, colleges and universities. Honor: Anderson Hall, University of Washington. Bebb & Gould, architects.

Grade schools. Honor: John Marshall School, East 68th and Ravenne boulevard. F. A. Naramore, architect. Honor: Bryant School, 33rd avenue, Northwest and East 60th street. F. A. Naramore, architect.

PUBLIC BUILDINGS:

Bridges, viaducts. Honor: Pier of University bridge. Daniel R. Huntington, architect.

Libraries, museums, etc. Honor: University Library. Bebb & Gould, architects. Honor: Henry Art Gallery, University of Washington, Bebb & Gold, architects.

COMMUNITY PLANNING:

Honor: The Uplands. Olmstead Bros., landscape architects. Honor: Government lock site. Bebb & Gould architects.

NOT CLASSIFIED: Alterations:

Honor: Grant Hotel, 1108 5th avenue. Hancock & Lockman, architects.

GARDEN HOUSE, ESTATE OF D. W. FISHER, JR., SEATTLE, WASHINGTON
J. Lister Holmes, Architect

Distinguished Honor Award, Washington State Chapter, A. I. A.

SKINNER BUILDING, SEATTLE, WASHINGTON
Robert C. Reamer, Architect

THE OLYMPIC HOTEL, SEATTLE, WASHINGTON
Geo. B. Post & Sons, Architects

The Problem of ARCHITECTURAL CRITICISM

By Irving K. Morrow

WHEN a literary journal has a book to review it turns it over to a competent party and prints the verdict. This may be enthusiastic, indifferent or derogatory. Your trust in a given judgment may be influenced by your opinion of the character of the journal or the capacity of the particular reviewer, but you do not assume before reading that none but favorable comment is going to be risked. You naturally look to literary journals for literary opinion and criticism. The same thing largely holds for most other arts. Barring certain "trade journals" given largely to gossip and advertising, it is understood that live art journals are vehicles for the discussion of current plastic and decorative arts, and that dramatic and musical reviews perform similar functions for their respective fields.

How about architecture? Since nobody can be expected to have the slightest interest in reading the greater part of what the architectural press prints, this might be considered a purely academic question. Circumstances, however, have made me perhaps one of the few persons prepared to answer it with any assurance. For some nine months I have undertaken to review monthly the standard architectural journals of the country for The Architect and Engineer. Nine magazines appear for inspection, of which one is published semi-monthly, and extras crop up from time to time. In the period since this duty was assumed, therefore, I have gone over a round hundred copies with passable conscientiousness. This specific experience only serves to confirm my previously less well documented impressions.

Let us assume a hypothetical table of contents, omitting authors' names. It might run somewhat as follows: Pilkington's Share in the Lantern of the Jamesville County Court House; An Architect's Ramblings in Sussex (or Touraine, or Lombardy, or Andalusia), (with sketches by the author); Window Muntin Profiles in Central Ohio; The Design and Construction of Stairways in Suburban Flats; Aesthetic Problems Encountered by the Architect; Bronze Versus Cast Iron as Materials for Elevator Doors; The Building Outlook in the United States for the Next Five Years (with charts).

Now this is in its way all well enough. A little harmless erudition painlessly administered is gratifying to the busiest of us; an architect must do a certain amount of basking in the amenities of life; problems both technical and aesthetic must be unflinchingly faced; and the modern architect is, after all, a business man who neglects stern economic realities at his peril. A many-sided calling, as we like to remind ourselves.

But in our hypothetical magazine there are also illustrations of current architecture. Here are photographs, with plans, and working drawings of main entrance, of the Little Falls High School, Little Falls, Ark., Wilzburger & Dunston, Architects; Frank M. Cook & Co., Associated Architects; James Adlington, Architect, Consulting. Also photographs, exterior and interior, of Cedarmere, House of Mr. and Mrs. Jonathan E. Singleton, Arbor Knoll, Ind., Samuel P. Tilton Associates, Architects. Articles accompany each set of plates. Here, doubtless, is that architectural criticism which is the object of our inquiry. We can afford to delve into subject matter where we only summarized the titles of the general essays. The article on the Little Falls High School begins—but first, in the absence of the plates themselves, a brief indication of the nature of the buildings involved would be in order.

The Little Falls High School is a plastered concrete building; longitudinal corridor bordered by two lines of class rooms; entrance and auditorium on central axis; terminal pavilions in projection. There are two stories, large windows banked between narrow piers, battlemented parapet, deeply receding Gothic entrance, and Gothic compositions with unoccupied niches on the blank walls of the end pavilions.

COLLEGE CENTER BUILDING, SEATTLE, WASHINGTON
McClelland and Pinneh, Architects

GRANT HOTEL, SEATTLE, BEFORE ALTERATIONS
Hancock & Lockman, Architects

GRANT HOTEL, SEATTLE, AFTER ALTERATIONS
Hancock & Lockman, Architects

The interior is as it came from the engineer's and the plasterer's hands, save in auditorium and kindergarten. These have elaborate systems of wood beams on the ceilings; the latter has also a large bay window and a fireplace. The Singleton House is a rambling English design, aggressively picturesque, finished in combinations of rough brickwork, rubble stone, and half timber; small leaded glass windows; steep slate roof with gables and dormers. Now at last we may relieve our increasingly pent-up impatience and get down to our examples of architectural criticism.

The article on the Little Falls High School begins with a tribute to the universality and efficiency of American education. Progress to the present high standard has been recent and rapid, so that the little red schoolhouse on the hill, dear to sentiment, has become in practice inadequate. Now we require the schoolhouse specialist, who knows all about everything that goes into a school building and just where it should go. (Understand that I am only summarizing the course of the article; each topic is amply developed, with allusions, quotations and examples). The modern schoolhouse is a highly specialized scientific problem. Messrs. Wilzburger & Dunston have made intensive studies and enjoyed exceptional opportunities in this sort of work, and the Little Falls High School appears as the objective toward which this unique experience has converged. It is a modern adaptation of authentic Gothic tradition. Its construction is reinforced concrete throughout, its equipment is in all respects the most up-to-date, etc. Then follow detailed descriptions of the several plates.

There are also special articles on the building's technical phases. The first treats of Locker Rooms in the High School. Individual lockers, it points out, are now universally used in high schools for the hats, wraps, books, etc., of pupils, because the work of these institutions is so organized that there is constant movement from place to place. These lockers may be located along corridor walls or in rooms set aside for the purpose. If the latter system is used, there should be separate rooms for boys and girls. They should be arranged so that ingress and egress can be had without congestion. The number of lockers should depend on the number of pupils the school is intended to accommodate. There are excellent unit steel lockers on the market, but if preference or economy requires, they may be made of wood. In detailing the latter an architect should not overlook ventilation and hook and shelf space. Lockers should not be set in more than two vertical tiers because of the difficulty of reaching above a certain height. Dimensions for lockers, aisles, etc., follow. In the last analysis, each case must be solved with reference to its own special circumstances.

It becomes evident that these technical articles are for the specialist. I forego those which treat of cafeterias, toilet rooms, heating plants, and auditorium stages, all with special reference to high schools, and return to ponder on the general article, not without some misgivings.

The introductory matter, for instance, seems gratuitous. That, however, may be due to no more than a mistaken notion of the requirements of literary art. But how about those detailed descriptions of the plates, which in the nature of things can tell nothing not told more adequately by the photographs described? Yet I am even less troubled by anything said than by silence on certain points which seem to cry for discussion. What may authentic Gothic tradition have to do with a problem designated (and rightly so) as modern and scientific? Why does the schoolhouse specialist's knowledge, reputed to cover everything which goes into a school building, fail to embrace young people? Here are topics more pertinent than a historical summary of the educational movement. Other matters more detailed are equally insistent. The decorative system is at hopeless odds with the structural one; the Gothic ornament and moldings execute clumsily and baldly in cement plaster; the total effect is heavy and featureless despite a worried insistence on the Gothic "artistic" features; the interior—the part really inhabited—is totally unconsidered as to appearance save for auditorium and kindergarten; "designing" these rooms consists in hanging superfluous wood boxes from the structural slabs—these and other similar matters are the crux of the problem from the critical point of view. And of these things there is not so much as an intimation. An article which greets Messrs. Wilzburger & Dunston as simultaneously the repositories of tradition and the heralds of a new day is illustrated by photographs which show that they have actually accomplished a depressingly bungling and mediocre piece of design. In other words, there is a lot of talk around the subject without any discussion of it at all. This is somewhat of a disappointment. However, there remains the

FREDERICK AND NELSON BUILDING, SEATTLE, WASHINGTON
John Graham, Architect

SHOREMONT APARTMENTS, SEATTLE, WASHINGTON
William J. Bain, Architect

Singleton House, which we approach not without hope.

Again, remember, I am only summarizing a much more fully developed essay. We begin with a reminder of the universality of the dwelling house in time and place as domestic shelter. Savages use single room huts. Of Greek houses we have little knowledge, but various theories are summarized. Here a light touch is introduced by humorous reference to Diogenes' tub. Then Roman houses—lares and penates—atrium—Pompeii, etc. And so on through various countries and successive ages (see any standard encyclopaedia under "house"). The modern house is both hearth—focus of the family's most sacred life and interests—and a complicated machine for the performance of domestic necessities. House planning (including equipment) has become increasingly exacting—is, in fact, a science. Mr. Samuel P. Tilton's unique experience as domestic architect has placed him in the front rank of those engaged in developing rational principles for an art and science of domestic architecture in America. Mr. Tilton's fertile imagination has conceived nothing finer than Cedarmere. The spirit of the small English manor has never been more authentically evoked in this country. The "antiqued" workmanship is indeed so convincing that it is with difficulty one distinguishes certain ornamental features actually brought over from England and incorporated in the building. In view of Mr. Singleton's unsurpassed collections of Japanese prints and old books the house has been constructed entirely of concrete.

Well, what about this? Simply that much of it has nothing to do with the Singleton house, and what has is unilluminating. Once more, all the important things remain unsaid. Why should the design be laboriously imitated from a period whose planning would be indignantly repudiated? Why will Mr. and Mrs. Singleton endure in all the living quarters of their house a speciousness they would not tolerate in kitchen, bath room or furnace room? Why should the English spirit be evoked in Indiana, or modern workmanship look ancient? None of these all-important questions is so much as suggested. Nor is it pointed out that all the picturesque exterior materials are superfluous veneers belieing construction; that the whole performance is no more than a brilliant anachronism; that it is not Mr. Tilton's imagination which is fertile, but his scholarship.

If you think I am just trying to be funny by indulging in reckless exaggeration, pick up any architectural magazine which may be at hand and read some articles, if you have the patience.

Are there, then, no writers with ideas on architecture, comparable, for instance, to those who review the literary field? Of course the mere formulation of the question makes it sound foolish. General articles of penetration appear from time to time. It is unreasonable to suppose that none of their authors is capable of applying his principles to specific cases. Serious journals of opinion not infrequently present valuable discussions of outstanding new buildings. The services of their writers might be obtained by architectural magazines. But — those subscription lists!

We recognize that magazines, barring official organs of learned societies and a few hobbies of wealthy men, are run to make money. Money is made from advertising, and available advertising is a direct function of circulation. This chain of influences operates on the whole periodical field; though varying attendant circumstances lead to results which differ from case to case.

A literary journal, for instance, appeals to the public at large. And no publisher's interests are tied up in one book, or a dozen books—he issues numerous and varied ones. Thus an author or publisher offended remains almost a negligible quantity. Besides, it is a tradition of the literary profession and the publishing business that reputable reviews shall speak their minds. Barring a provocative manner, a derogatory criticism is not a legitimate cause for offense.

An architectural journal circulates in quite another field. It is almost confined to a profession which is itself relatively small. There are also certain characteristic difficulties concerning the individual architect addressed. He is prone to childish supersensitiveness regarding the merits of his work. A suggestion that anything he has done falls short of perfection is resented as a personal affront. His convictions about advertising are also a little hazy and conflicting. He realizes that under modern conditions publicity must be obtained, but he doesn't like to have you think he is doing it. When he advertises, he wants to be able to look the other way, nonchalantly twirling cane or watch chain, just as if nothing were really happening. The architectural magazine appears as a dignified and ethical method of advertising. When it contains laudatory comment, however fatuous, he orders

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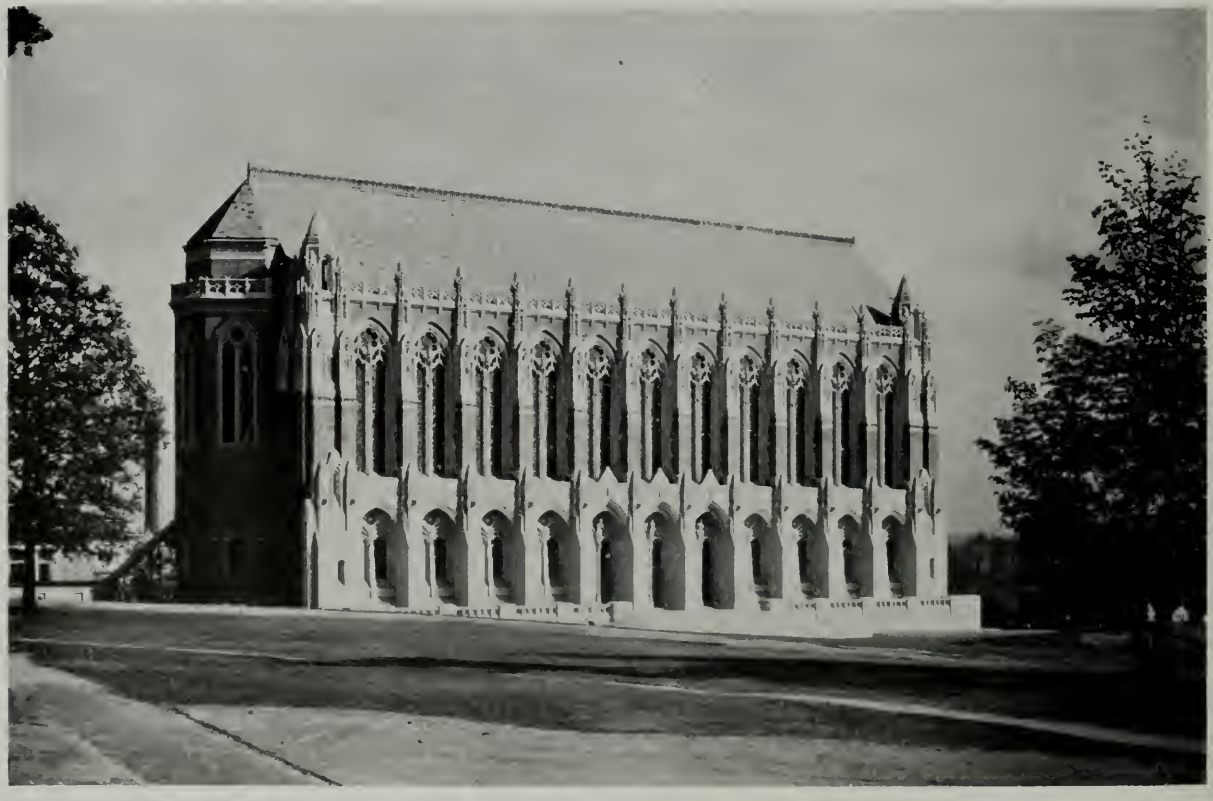
Bebb and Gould, Architects



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extra copies for present and prospective clients. If anything derogatory slips in, he not only doesn't order the extra copies; he writes an indignant letter cancelling his subscription. And to the magazine the loss of the subscription is a far more serious matter than the indignation. Thus we arrive at the paradox that the particular place where you can not find architectural criticism is in an architectural journal.

Most exceptions are only apparent. When a magazine speaks plainly about a building in a distant section of the country its special clientele is not jeopardized. But, to be specific, I seriously doubt if the Western Architect would permit Mr. North to be as rough on an important Chicago building by a prominent Chicago architect as he was on the late Guy Lowell's New York County Court House[1]; or if Mr. French could find place in the Architectural Forum for as frank a treatment of a New York building as he gave Mr. Applegarth's California Palace of the Legion of Honor in San Francisco[2]; or if the Architectural Record would allow Mr. Frank Lloyd Wright to come down to cases and apply to current New York buildings the stimulating and provocative generalities he is presenting in his series of articles now running[3]. (If any of these journals chooses to interpret this as a challenge and meet it, I shall feel no chagrin at having been shown up as a false prophet).

For some years I have been writing at intervals for The Architect and Engineer. It has always been my effort to speak frankly, uninfluenced by personalities, in the interests of Architecture with a capital A. In other words, I have aimed at criticism. I believe The Architect and Engineer has maintained toward me as liberal a policy as has any magazine in the country toward its contributors; as liberal, doubtless, as is possible under the commercial circumstances inevitably obtaining. What has been the result from this point of view of the expression of critical opinion? At least one article remains unpublished because of my insistence that it go as written or not at all. On several occasions I have acquiesced in deletions of unfavorable comments because, though resenting the procedure in principle, I considered the particular cases of not sufficient inherent importance to warrant a show down. More than one building I have not treated because my opinions were known to have been unfavorable. In half a dozen instances frank expressions of unfavorable opinions have gone uncensored. Several of these caused subsequent trouble and still do duty as warnings in the event of argument. In the greater number of cases where I have made unfavorable comment it has been swathed in words sufficiently long and sentences sufficiently involved to break the force of the blow. In other words, I have technically salved my conscience, but only at the cost of failure to do the one worth-while thing; namely, make my position unequivocal. I need not repeat that I recite this personal history not as a charge of special depravity, but to make clear the obstacles which commercial conditions put in the way even of a policy I have been glad to welcome as especially liberal.

It is often urged that derogatory criticism is a deliberate excursion out of a magazine's way, which can be avoided by the simple expedient of publishing only work which really deserves praise. The obvious answer is that perfection is an ideal unattainable in human experience; that the most distinguished work may embody conspicuous faults; and that, from the critical point of view, the shortcomings may be more significant and more provocative of fruitful discussion than the merits. For a person who believes, as I do, that an architectural journal should be an organ devoted to the cause of architecture rather than architects, this position is merely begging the question. Americans are prone to the feeling that progress is merely a matter of facile Pollyanna gladness and forgetting what you don't like, and that anybody who occupies himself with unpleasant conditions is a gloom. Artistic criticism, the testing of current performance by fundamental principles, often leads to questioning and condemnation, and is therefore futile pessimism. Why not keep your eyes open to see the good and forget the bad? As a matter of fact, there are occasions when without a clearing of the underbrush the desirable growths will be stifled and stunted, or unnecessarily retarded.

[1]The Passing Show—A Hexagonal Court of Justice. By Arthur T. North. The Western Architect, July 1927, p. 114.

[2]The California Palace of the Legion of Honor, San Francisco; George A. Applegarth, Architect. By Leigh French Jr. The Architectural Forum, October, 1925, p. 201.

[3]In the Cause of Architecture. By Frank Lloyd Wright. The Architectural Record. Five installments have appeared: I. The Architect and the Machine, May, 1927; II. Standardization, the Soul of the Machine, June, 1927; III. Steel, August, 1927; IV. Fabrication and Imagination, and V. The New World, October, 1927.

BRYANT SCHOOL, SEATTLE, WASHINGTON
F. A. Naramore, Architect

JOHN MARSHALL SCHOOL, SEATTLE, WASHINGTON
F. A. Naramore, Architect

The serious architectural journal should actively occupy itself with questionable architecture no less than good, particularly when the former appears in important or conspicuous structures.

In a general way there are three legitimate courses open to an architectural magazine in its dealing with the buildings it shows. It may print frank and fearless criticism; it may exclude all comment whatsoever; or it may convey pertinent information without opinion.

The first course is the one which the managements of American magazines agree would be suicidal. The arguments sound cogent, though at heart I question if they are not founded in unnecessary timidity. An independent and imaginative proposal, disrespectful of precedent, will always throw the practical people into a panic. Yet such a policy consistently and sincerely applied often leads to success which defies all "reasonable" prediction. (Who, after all, are the practical people?) If a magazine were to make a virtue of a policy of serious and untrammeled criticism, and hold to its course through thick and thin, unswerved by personalities, pressure, or abuse, might not the dignity and authority thus acquired very quickly outweigh the defection of a few little soreheads? A valuable development of such a policy might be the selection of all material by a jury of responsible architects and artists. It might seem in principle that the critical articles would come with better grace from people outside the profession than from fellow practitioners. Practically, however, this is unrealizable. There exists a small handful of qualified lay critics, like Mr. Lewis Mumford. But in general people without architectural training are entirely oblivious to the very things which make architectural problems architectural, and view architecture from the point of view of literature or painting. It is needless to say that such discussion is useless when not actually misleading.

This ideal critical policy would have to be applied with the most scrupulous rigor and impartiality. The slightest compromise in the way of personal favoritism or concession to assumed commercial necessity would put us back exactly where we now stand—subservient to the unrestricted play of commercial forces. One is entitled to misgivings on two scores. It would doubtless be difficult to find a management, business and editorial, disposed to apply the scheme with the requisite fanatical fervor. Even worse to contemplate, it might be betrayed in the very house of its supposed friends. I have said that the architect looks upon the architectural magazine as an ethical method of advertising. Does he want a journal which is a real organ of criticism? Which is only another way of asking, Is the American architect primarily an artist or a business man?

The alternative of excluding all comment whatsoever is unquestionably preferable to the usual current practice which I have satirized. If the text must be valueless, let it be omitted. The feeling that it is indecorous to print photographs without saying something about them, however banal, is akin to the theatrical illusion that useless music is necessary between the acts. Photographs and plans generally tell their own tale, or at least the essence of it, and there is no excuse for any comment which does not add something tangible in the way of interpretation or enlightenment.

The third alternative is the most satisfactory substitute for a genuine critical policy, (and, in fact, should accompany the latter where adopted). By conveying pertinent information, however, I do not mean the futile current practice of merely describing the photographs in words. But there are always features or aspects of a subject which photographs fail to show, such as colors, textures, interrelations of things not visible in one view, etc. Not infrequently a building conveys emotional impressions which are as real as the substance of the walls, but which the best photograph is powerless to catch. Statement of such matters enhances the value of the pictures and does fuller justice to the architect's achievement. Obviously this information can not be given by a critic who has merely had a bunch of photographs turned over to him. It must come from someone who has seen the building.

This brings me to what I have long considered an important but neglected consideration on architectural criticism; namely, that the most illuminating things to be said about a building can often come from the architect himself. The suggestion that an architect discuss his own work is generally met with a raising of eyebrows. How indelicate! Obviously it is not a question of his passing judgment on its value. It would be ridiculous to read from an architect's own pen that his building was masterly or mediocre. But in connection with every building there are conditions of the problem, obstacles met, principles employed and ideals aimed at which only the creator can know.

ANDERSON HALL, UNIVERSITY OF WASHINGTON, SEATTLE
Bebb and Gould, Architects

REFECTORY, ZETA PSI FRATERNITY, SEATTLE, WASHINGTON
Arthur L. Loveless, Architect

These are often matters of prime significance, not only with reference to the structure in question, but for architectural problems in general. Not one outside critic in a hundred, for instance, could have spoken as much to the point on the Barclay-Vesey Building as did Mr. Walker in his article in The Architect[4]. Had the same issue contained Mr. Mumford's New Republic article[5] it would have included practically everything worth while that I can recall having seen in print on a building which has perhaps elicited more comment than any piece of American architecture in years.

We constantly hear the charge that people don't read architectural magazines. The instinctive reply of one who has done so is, why should they? But is a readable magazine only an impossible dream?

On that question I have indicated some of my own convictions. But if it really is impossible, let us at least have the courage and common sense to save a substantial amount of time, labor, material and money by ceasing to print the stuff we admit nobody reads.

NEWSPAPER CRITICISM

Those who can write simply, clearly, and interestingly about architecture are few indeed. The tendency is to pose as a **pedagogue** or a high priest, letting out a few secrets from some mysterious sanctum. The increasing amount of attention paid to architecture by the press still leaves an unlimited opportunity for some humble soul who, by his lack of affectation, can reach the simple intelligence of the great army of newspaper readers.

The following editorial from the Springfield Republican seems an excellent example of what a newspaper might do, and it reveals the fact that there is at least one newspaper editor in the United States who really thinks about architecture and who is quite unafraid of all the pedagogues and high priests.

"In the course of simple exercises constituting the formal dedication of Harvard University's new Fogg Art Museum, President Lowell said to the architect, Charles A. Coolidge: 'This is a monument to you and you never had a better one nor did any other architect in modern times.' The building which elicited this warm and spontaneous praise represents the adaptation of Georgian style which is apparent in the newer Harvard dormitories, and which has been called 'Twentieth Century Cambridge.'

"These graceful buildings of brick with stone trim have a native simplicity and elegance which is sadly lacking in most Harvard architecture of the late 19th Century and the first decade of the 20th. As a home of the fine arts, the new museum has only to translate the grace of the residential structures into the repose and dignity of an institution, and this it does without losing intimate and hospitable appeal. While it may be called a monument of the architect's skill and good taste, it is not perhaps properly characterized as a monumental building.

"In a semi-official description of the new museum, the director, Edward W. Forbes, remarked: 'That high purpose of architecture, the expression of the function of a building by its exterior, is admirably achieved.' With exactly the same thought, the new National museum of Wales at Cardiff, the latest unit in one of the most notable group of buildings in the British Isles, was characterized on its opening by the architectural correspondent of the London Times: 'It could never be mistaken for anything but a museum.'

"These are typical applications of the orthodox principles of architectural criticism. Yet a building is an artistic success only as it achieves an aesthetic self-expression over and above its proclamation of its own purpose. Probably the ugliest buildings on earth are grain elevators. And in them the expression of function is complete. The Times's correspondent, after remarking that the new building at Cardiff 'could never be mistaken for anything but a museum,' adds, 'and study of any detail, such as the pavilion in relation to the general mass is a joy to the orderly mind.' Here, of course, aesthetic principles are being put forward, not engineering principles. Architectural composition is not identical with expression of purpose.

"The real virtue of design consists in the communication of beauty beyond the sense of a utilitarian purpose fulfilled. A natural history museum must be more than an exaggerated show case and a home of the fine arts must suggest more than a glorified skylight and shadowless interior spaces."

By contrast, the Pittsburgh Gazette-Times indulges in this: "The American Institute of Architects announces that there are 10,000 real architects in the country. Odd we don't come across some of their work occasionally."

[4]The Barclay-Vesey Building and its Interior. By Ralph T. Walker. The Architect, March, 1927.

[5]The Barclay-Vesey Building. By Lewis Mumford. The New Republic, July 6, 1927.

HOUSE OF B. G. GARBER, SEATTLE, WASHINGTON
Schack, Young and Myers, Architects

DINING ROOM, HOUSE OF B. G. GARBER, SEATTLE, WASHINGTON
Schack, Young and Myers, Architects

ACOUSTIC DESIGN of CHURCHES

By

F. R. Watson ~ University of Illinois

NEARLY everyone at some time has had the discomfort of not understanding a speaker. And under this circumstance, one promptly inquires why wires were not stretched or a sounding board used to remedy the trouble. But these devices, according to modern science, are practically of no use, in spite of the fact that they are generally regarded as the means of correction.

The acoustic adjustment of rooms is a subject of modern development, and became an acute problem when large auditoriums were built with steel and plaster constructions. As a result, only a few architects are informed concerning the scientific progress in the subject, not only **because** the development is comparatively recent—since about 1900, with instruction given in less than a dozen schools—but also **because** many published accounts of acoustics are not easy for them to understand, **because** of their aversion to being obliged to consider a new element in the already complicated problem of buildings, with an additional expense.

Active progress in the acoustic adjustment of rooms has been stimulated by commercial companies, which have developed various products that have acoustic merit in greater or less degree, presenting the matter by modern sales methods to the parties involved. It appears important at the present time to set forth discussions of the subject that are based on scientific investigations and yet which are simplified as far as possible for the information of the layman who is confronted with the necessity of acoustic installation.

What is desired for ideal acoustics is that the sound reaching an auditor in any part of a room shall be of suitable loudness and distinctness for comfortable hearing, with an elimination or control of echoes, reverberation, "dead spots" and other faults. To a great extent, it is possible to secure such ideal conditions; and it is the purpose of this paper to explain some of the fundamental actions of sound and to show how church auditoriums may be adjusted so as to have good acoustic properties.

In the open air, the utterances of a speaker progress with practically no distortion, and perfect acoustics are obtained. But only a few people standing on the level ground around the speaker can hear him, because a large part of the sound proceeds upward and is lost, and the sound proceeding sideways is rapidly absorbed by the auditors' clothing. An auditorium improves this condition. A raised platform for the speaker allows all the auditors to see him and hear him. By means of a balcony the auditors at the outside edge can be brought nearer. The enclosing surfaces serve to reflect the sound going upward and thus increase the loudness for auditors in all parts of the room. While the auditorium thus produces some advantages, it also creates defects. For instance, the reflected sound, which is the chief difference between open air acoustics and auditorium acoustics, may produce serious trouble, so that a study of its action is the most important consideration in obtaining good acoustics in a room.

Sound travels out in spherical waves from a speaker or a musical instrument with the great velocity of 1120 feet per second at ordinary temperatures,—about as fast as a rifle bullet. As a result, sound will be reflected back and forth in an auditorium about 30 times a second between walls 40 feet apart and because of these reflections, will fill an auditorium of usual size in a small fraction of a second, thus insuring a **loudness** in every part of the room.

A speech sound, such as any one of the words uttered by a speaker, requires about one-tenth of a second for its completion, and travels 112 feet before the word is finished; which means, in the open air, that a speaker would be at the center of a sphere of 112 feet radius that would be filled with the sound of the word.

Abstracts from an address at a meeting in Chicago of the Church Bureaus of Architecture and the Committee on Church Building of the Home Missions Council.

In an auditorium, the sound waves would be reflected several times in traveling 112 feet so that, instead of a sphere, there would be overlapping bundles traveling in every direction, that completely fill the room with the sound of the word before the speaker finishes saying it.

These overlapping sounds may produce confusion. For instance, sound is reflected from the wall behind the speaker in much the same way that light is reflected from a mirror; that is, the speaker has a fictitious image behind the reflecting wall that inmitates his speaking. It is then the same as if two speakers said the same words at the same time. Imagine the effect on an auditor. If the two speakers are close together, the effect is beneficial, but if far apart,—as would be the case if the speaker were some distance in front of the reflecting surface—a blurring of speech sounds occurs and it becomes difficult to understand. Not only is sound reflected from the wall behind the speaker, but from all the other walls, so that an auditor listens not only to the real speaker but to a large number of fictitious speakers due to the reflecting walls. The possibilities of confusion are easily imagined.

Modern investigation shows that walls at a distance of about 25 feet or less from a speaker produce beneficial reflection of speech sounds. This shows the importance of having a speaker located near reflecting walls. Walls more than 25 feet distant are sources of trouble, but fortunately their effect gets smaller with increasing distance, because the imaged speaker is now further away from the auditor. If a wall, particularly a curved wall, is at some distance from the auditor, the reflected sound may arrive long enough after the direct sound to produce an echo; that is, a distinct, disturbing repetition of the direct sound. Reflecting walls that produce noticeable defects may be padded.

LIVING ROOM, HOUSE OF DARRAH CORBET, SEATTLE, WASHINGTON
Arthur L. Loveless, Architect

The most serious defect of reflection is the prolongation of sound in a room, called **reverberation.** When sound arrives at a wall or ceiling, it is reflected, absorbed and transmitted in varying amounts depending on the nature of the reflecting surface. A hard plaster wall,

for instance, reflects 95 per cent or more of the incident sound, and therefore absorbs but little; whereas a layer of hairfelt, one-inch thick, may absorb 55 per cent with a correspondingly smaller reflection. If a room is bounded by plaster, glass and wooden surfaces, very little absorption takes place and the sound may be reflected 200 to 300 times before it becomes inaudible. This means that the utterances of a speaker will overlap and produce confusion for listeners. What is desired is to have each utterance rise to a suitable intensity and produce its effect on the listener and then die out so as to leave the field free for the succeeding utterance.

The use of carpets, hairfelt and similar materials increases the absorption, and furnishes the means for controlling the reverberation in a room. An audience is an excellent absorber of sound due to the clothing worn. In the winter time, when overcoats and heavier clothing are used, the absorption is greater than in the summer time. An auditorium filled with a large audience may be satisfactory, but it is the modern practice to install absorbing material to avoid defective acoustics for small audiences or for rehearsals in the empty hall.

An all important question arises as to the amount of sound-absorbing material that should be installed for good effect, and this has been answered by obtaining the opinions of auditors regarding auditoriums already possessing good acoustics. It is found for best effect that a standard sound should die out in two seconds or less depending on the size of the auditorium.

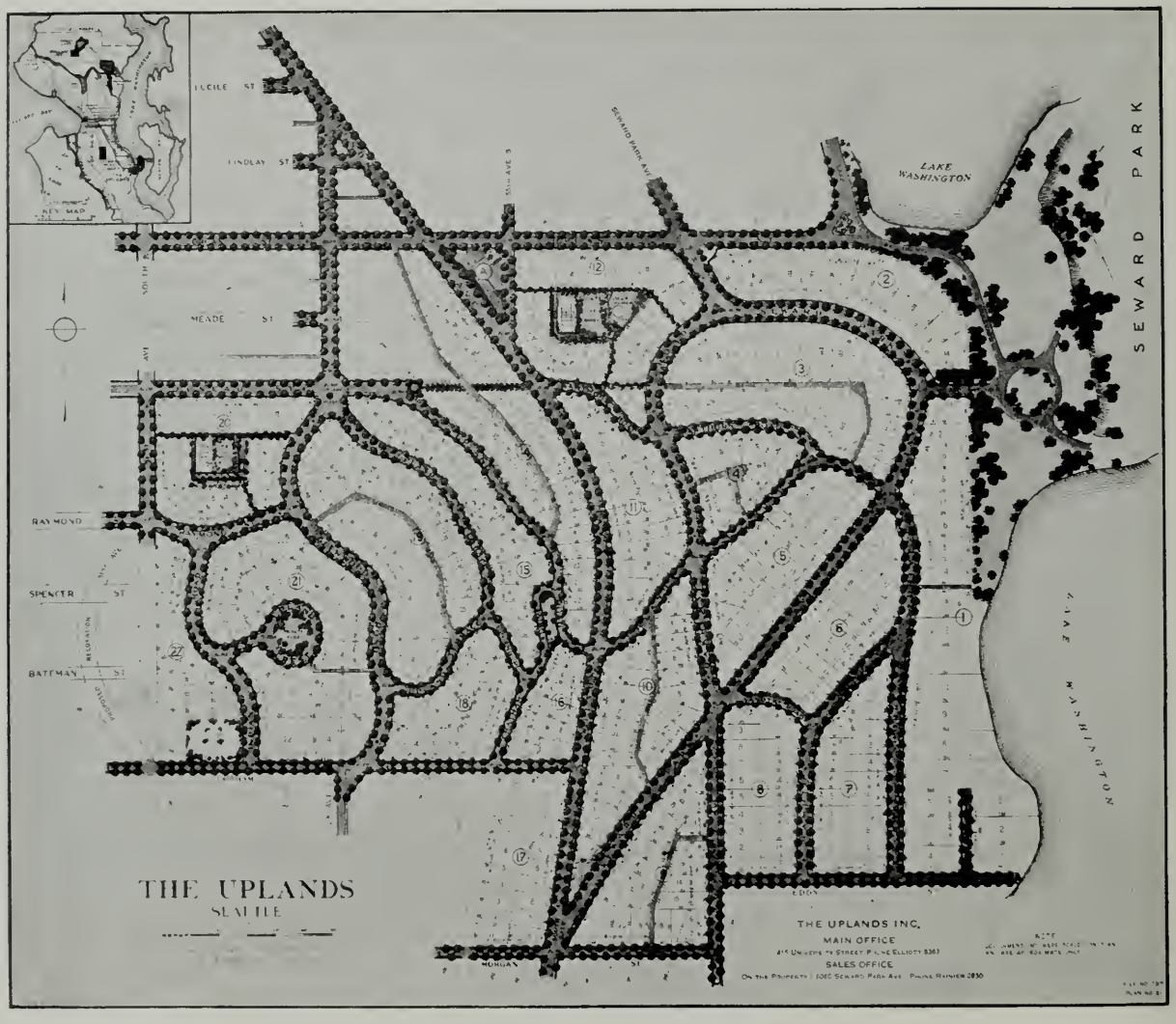
LIVING ROOM, HOUSE OF ARTHUR L. LOVELESS, SEATTLE
Arthur L. Loveless, Architect

Calculations can then be made to determine how much material will be needed for the auditorium to secure the required time of reverberation.

Having determined the amount of material needed for optimum acoustics, the question arises as to where it should be placed. Experience shows that some walls are more likely to give troublesome reflections than others. For instance, a rear wall may reflect sound to an auditor near the speaker and produce an echo; that is, a repetition of the direct sound that is noticeable. This result follows if the

time interval between the direct and reflected sounds is about one-tenth of a second or more, for which the difference in path of the two sounds is at least 112 feet, and the reflecting wall is about 56 feet distant from the auditor. With the wall at a greater distance, the echo will be worse. If the reflecting wall is curved, which is often the case, a focusing action follows and the echo is more pronounced. To reduce this defect, it is desirable to place sound-absorbing material on such reflecting walls, particularly those at some distance from the stage. This practice finds commendation for another reason. Experiment has shown that better acoustics are obtained if the walls about the speaker or musician are left reverberant while the absorbing material is placed on the walls nearer the audience. Under these circumstances, the speaker or musician finds that it is "easy to speak or play," and the auditors find the listening satisfactory.

The shape of an auditorium is a matter of consideration. Generally speaking, a rectangular shape is preferred. Curved walls produce eccentric actions on sounds and may set up bad echoes. Balconies are usually advantageous acoustically, since they tend to break up sound in the otherwise large space. Gothic ceilings are beneficial to acoustics, because they reduce possibility of echoes, and because sound-absorbing material is more effective on such surfaces than on a flat ceiling.



PLOT PLAN, THE UPLANDS, SEATTLE, WASHINGTON
Olmstead Bros., Landscape Architects

Large auditoriums are more difficult for good speaking than small ones. The reflecting walls are some distance from the auditors, with possibilities of echoes and blurring of speech. Electric loud speakers serve to amplify a speaker's voice, but they may produce some distor-

tion. Music is at an advantage in large rooms, more so than a speaker, because musical instruments have possibilities of greater volume of sound.

Music requires the same acoustic adjustment of auditorium for optimum conditions as speaking. Increasing the sound-absorbing material beyond the optimum makes the room deader, so that music sounds dry and lifeless, but the speaking becomes more distinct. If less sound-absorbing material is used than required for the optimum, music still sounds good, but speaking rapidly gets worse.

CHINESE HOUSES

Let me describe these Chinese houses. Each "house" consists of anywhere from two to a hundred little separate one-story buildings, the whole collection inclosed by a stone wall, ten feet high, with broken glass on top. Within this compound, or surrounding and protecting wall, the various houses are arranged symmetrically in squares, built around courtyards that open into one another. They are laid off with beautiful balance, and the courtyards, large or small, are usually paved with stone. Sometimes trees are planted in them, or bridges and rock gardens and peony mountains are made. The finer and more numerous the houses, the more beautiful and elaborate the architecture of these separate, single buildings, the larger and more elaborate the courtyards, the more filled they are with trees, lilac-bushes, stone bridges and other charming details. As one enters the compound, the building facing one is the residence of the mandarin himself. Back of it . . . are the houses . . . of the various members of his family. All are quite separate from the other, yet all are connected by passages leading through moon-gates in the dividing walls, one courtyard opening into another in orderly, yet rather confusing, profusion. However, we are not looking for anything grand and imposing—a palace or the abode of some old mandarin. We know several people who live in such stately homes, but we shall be satisfied with a simpler house, consisting of fewer buildings and fewer courtyards.

Inside the compounds these various separate buildings are divided by invisible partitions into "rooms." In the ceiling one sees arrangements by which a wall can be built in, a screen adjusted—a big carved screen—or some sort of partition erected by which the house can be further subdivided. These possibilities for subdivision, whether by elaborately carved woodwork or by simple paper screens, are described as rooms, whether partitioned off as such or left open as one big one. Therefore one rents one's house according to the number of rooms it may be divided into, whether the division is made or not. We find we cannot possibly live in a house of less than twelve rooms, or four by ordinary reckoning. One house (three rooms) for E—, one for me, one for a salon, one for the dining room. This makes four rooms, European calculation, twelve according to Chinese, and leaves nothing for guest rooms, trunk rooms, a study, or anything of the kind. Therefore, all joking aside, a house of a hundred rooms might do for us nicely!

How lovely they are, these one-story stone houses, with their tiled roofs, red lacquered doors, fine, delicate carvings on the window lattices and all the rest of it! The floors are of stone, but foreigners have wooden floors laid down. The winters are bitter here, and before these Chinese houses can be made comfortable, according to Western ideas, much must be done to them. Some foreigners put in glass windows in place of the thick, cottony paper windows of the Chinese. The paper windows shut out the cold, it is true, but, being opaque, they also shut out the sunlight. And how gorgeously they are furnished! Such ebony chairs, such wonderfully carved tables! . . . Mind you, all this furniture can be bought very cheap. To live Chinese fashion is not expensive at all, despite the impression of magnificence and luxury, which is rather overwhelming. When one considers that the most ordinary Chinese things are sold in America at a profit of three or four hundred per cent, the outlay for Chinese furniture in Peking is not great.

As to heating, stoves do it. Every room—I mean every one of these separate buildings—is heated by its stove; a good big one, too. Russian stoves are found here and there, and any one who possesses a Russian stove is well equipped to withstand the bitterest winter. Now and then open fireplaces are introduced, but the stoves go on functioning just the same.

These Chinese houses are charming from the outside. You wind your way along a narrow, unpaved street, or hutung, a street full of little open-air shops, cook-shops, stalls of various kinds, and then come upon a high, blank wall with a pair of stone lions at the gateway and an enormous red lacquer gate, heavily barred, and that is your house.—Ellen L. La Motte, in "Peking Dust."

Movement to Complete the WASHINGTON MONUMENT

ARCHITECTS of the Middle West may sponsor a movement to bring about the completion of the Washington Monument by 1932, when the 200th anniversary of the birth of George Washington will be celebrated.

The proposal, formally advanced by Glenn Brown of Washington, is now before the Chicago Chapter of the American Institute of Architects for adoption. Action was urged by Mr. Brown, former secretary of the Institute, in a statement dealing with the plans, soon to come before Congress, for the development of the Nation's Capitol.

"Seeing the Washington Monument from my window and viewing it from the hills of Maryland, the District and Virginia during the past thirty years," Mr. Brown says, "has impressed the following pictures upon my mind:

"Gray in the early dawn, golden in the sunrise, brilliant in the bright light, pink in the afterglow, mysterious in the moonlight, black in the thunderstorm, ghostly in the mist, always majestic, stands the Memorial to Washington.

"The central feature of a great landscape composition, it is a charming and dignified end to many vistas. Seen from the Capital, the White House and the Lincoln Memorial, it stands imposing in its grandeur; from the river it rises pure and simple with the green hills of Maryland as a noble exedra. Under the brilliant searchlight, the great white shaft stands, pure and spotless against the black sky.

"We thrill when the white beacon unexpectedly appears framed by the green foliage in many distant views. Golden in the setting sun, the great obelisk is a vision of beauty when reflected in the mirror-like lagoon. A rare sight, seen and enjoyed by few, is the brilliant star on its crest, when the aluminum cap reflects the sun's rays.

"In the sunlight and shadow, thunder storm and mists, in the clouds and the clear sky against the golden sunrise and the red sunset, against the bright, white clouds and the dark, gray clouds, moving with the wind, bowing to the warmth of the sun, taking the lightning's stroke, ever changing, it is always stately, always beautiful.

"The want of a base in these images was obscured by buildings or foliage. Upon a near view, we are impressed by the lack of a base and must feel the monument has never been completed.

"Robert Mills, the designer, provided a circular colonnade of Doric columns set on a simple massive base. When from the Arlington Hills we see the Lincoln Memorial on the axis of the monument the effective results of such treatment can be appreciated. As the Washington Monument was the central and dominant feature in the park commissioner's composition, the treatment of its base was a deep concern.

"It was Charles F. McKim who, after seeing the Egyptian obelisk on a horizontal marble terrace in Italy, suggested it as the proper treatment to complete the Memorial. The commission agreed that this solved the problem. Their plan called for a marble terrace some 1200 feet long and approximately forty feet high on the west front with a noble flight of steps down to the level of the Lincoln Memorial lagoon. I think we must all acknowledge this a better solution than Mills' colonnade.

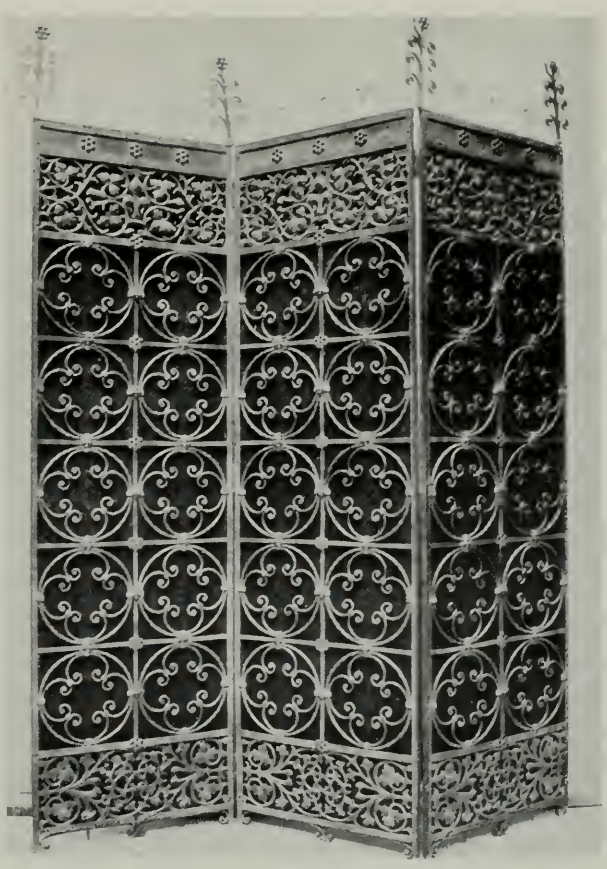
"This treatment makes it a part of the great composition connecting the Washington and Lincoln Memorials.

"In a few years—1932—we will be celebrating the 200th birthday of Washington. Could the country pay him a better tribute than the completion of his monument begun nearly a hundred years ago—1833?

"Chicago is the city, and the Chicago Chapter of the Institute the instrument, to arouse public interest in the completion of the Washington Monument, as it also involves a stately connection with the Lincoln Memorial.

"I believe this public service in memory of Washington and Lincoln will interest the Chicago Chapter, and I further believe the architects of the Middle West may start the movement to rectify this long-standing neglect. If the people become interested, Congress will see that this noble Memorial is completed as a token

LOUIS XV CARVED SCREEN, FIGURES IN BAS RELIEF, ANTIQUE GOLD ON BLACK BACKGROUND.



ITALIAN SIXTEENTH CENTURY WROUGHT IRON SCREEN WITH RED DAMASK BACKGROUND.

TELEPHONE CADDY "LOVE," MADE OF COMPOSITION PLASTER AND DECORATED IN POLYCHROME.

ITALIAN SUNBURST CLOCK OF ECCLESIASTICAL DESIGN. THE FINISH IS SILVER HIGHLIGHTED WITH GOLD.

of reverence before his 200th anniversary in 1932."

The Chicago Chapter has "expressed its indorsement of Mr. Brown's request for the instigation of action to result in the completion of the Washington Monument." A formal resolution to sanction the plan has been prepared by the Washington Committee of the Chapter and was voted upon at the Chapter's November meeting.

* * *

The American Institute of Architects, of which Milton B. Medary of Philadelphia is president, is actively co-operating in promoting the "Plan of Washington." A report telling of the progress of the project is made public by Abram Garfield of Cleveland, chairman of the Institute's Committee on Public Works. The report says:

"The last report of the Institute's Committee on Public Works told of the appointment of a Board of Architectural Consultants which was to study the complete development of the Pennsylvania Avenue triangle. It occurs to this Committee that the profession may not realize the extent of this area and its eventual importance. We speak in millions so easily that it has lost its significance for purposes of illustration, but the following comparison may help towards an understanding.

"In the course of the studies made by the Board of Architects a plan of the Louvre was made and placed over the plan of the buildings in the triangle. It was entirely included in the triangle area; its length was only a little over two-thirds, and its block plan became meagre and stringy by comparison. This, perhaps, will give an impression of the magnitude of the program.

"The general plan has been adopted in principle after studies which have gone through all suggested possibilities, and it is intended that it shall be presented to Congress in December. The main architectural treatments have been largely determined, but in such terms that the individual designer will have sufficient latitude for his personal expression.

"Two buildings, the Department of Commerce and the Bureau of Internal Revenue, have progressed to the point where bids for preliminary contracts may be solicited in the near future."

SIMPLICITY OF THE JAPANESE HOUSE

Looking over some color prints from Japan, I have been much impressed by the extreme simplicity which characterizes the interiors of Japanese houses as depicted in them. Print after print shows us a room almost bare, the walls in some delicate brown or grey tint, with the wood framing exposed: this latter consists of bamboo cane or simple squared posts and beams, with now and then a door head slightly arched. For the elaborately ornamented screens and bric-a-brac which are associated with Japan one searches these prints in vain; the rooms are characterized by an almost complete absence of mere ornament. There is in one a single panel of the wall or screen adorned with a landscape very slightly suggested; in another a blind or hanging of some sort bears a text or painted floral decoration; or a vase standing on a slightly raised dais, holds a carefully arranged spray of flowers; or a jar on the center of a wall displays a single peony or chrysanthemum exquisitely poised; but beyond this there is no ornamentation.

There is considerable variety in the shape of the rooms shown, none seemingly being just foursquare. A complete absence of furniture characterizes them, and only such things as are actually being used find a place there . . . . The lady arranging flowers does not have the sprays from which she is to select on the floor by her, but on a beautifully lacquered tray; while all the utensils one sees represented, such as boxes, candlesticks, tea-cups, or platters, are elegant in shape and color and often much ornamented. They are quite obviously in the room for use however, not for ornament.

Judging from these prints, the refinement of Japan seems to result in no desire for beautiful ornaments or elaborate decorations, but rather in the demand that everything that is required for use shall be elegant or even highly ornamental. Their aestheticism evidently does not bring a craving to be always surrounded by innumerable articles of virtue, but rather a demand that such things as must come to their hands justified by their use, shall come also graced by beauty.

In contrast with the extreme simplicity of the rooms is a lavish display of bright color and ornament on the dresses of the ladies, as they are represented chatting or working; this tells with wonderful effect against the soft grey or brown, or the pale green of the dried rush matting, which are the prevailing colors, shown on the walls and floors. — From "The Art of Building a Home," by Barry Parker and Raymond Unwin.

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PARIS SKETCHES

Forgotten Corners in the Quartier Latin

By E. N. Kierulff — R.S.M.

TUCKED away between the busy rue des Rennes and the little rue de Dragon, just a step or two from the boulevard St. Germain, is the Cour de Dragon, whose arched way bears a great sculptured grinning dragon. Walk under the dark arch and you step into a tiny world, shut in and little visited. Dirty to be sure, but one doesn't mind this, for dirt, strange as this may sound, can be fascinating if one is not inclined to be too critical.

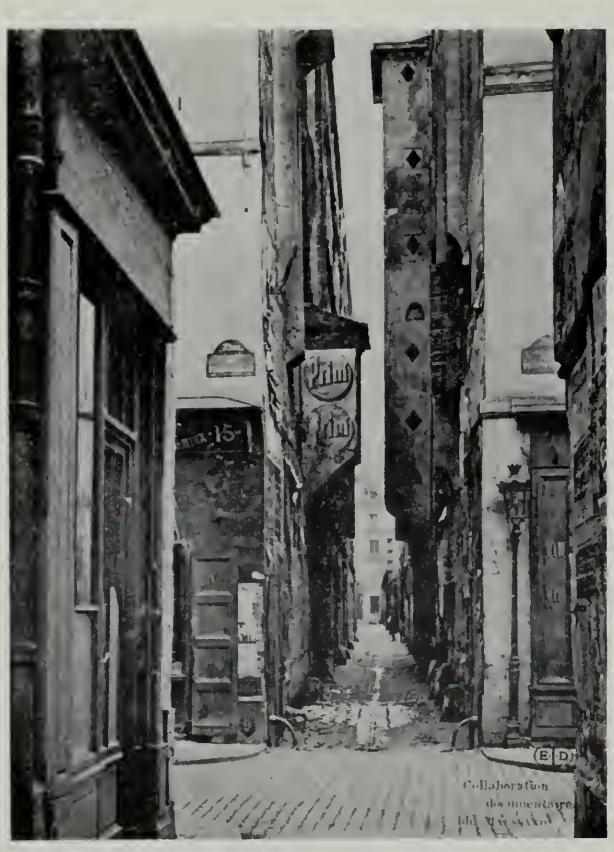
There is the old coppersmith's shop, with its tiny window full of charming old pieces, some dull and a trifle battered, others brightly burnished. Across the court the blacksmith's shop, small and very grimy, but outside his doorway there are some treasures that make your heart skip a beat to see them lying there apparently neglected, and forgotten. They are firebacks, many of them, some large and some quite small, bearing the arms of old ducal families long extinct; two or three with simple scrolls to embellish their plainness, and a few bearing the crown and fleur de lys of the old royal house. Old well-heads set in the walls here and there, give those who live in this little world their daily water—if only one might take one of these carved bases and old bronze taps away and set them gently in some shadowed garden, the splash and play of the water would weave stories of long long ago, of forgotten days and of forgotten people. Then the houses, some lean this way and some that, but they are quaint in their leaning, and the wrought iron balconies set beneath each window and two fine old half-round towers with outside stairways, set at the end of the court, will warm your heart.

Go and see this bit of the Paris of days long passed, see it some noon time when the sun seeks it out and fills it with golden light, but go again when evening is falling, if you would see it at its best; when long twisting shadows are softening it all, when sabots are clacking over the poor worn cobbles—what tales those cobbles could tell—voices call from windows growing dim in the twilight, and the wellheads are sending their gentle streams plashing and falling into the carved founts; see it now and then go away out into the busy streets, but turn back for an instant and bid adieu to one of the spots that make Paris just Paris to those of us who know and love her.

Some warm spring or early summer afternoon, when you have perhaps an idle hour or two, walk down the Boulevard St. Germain and into the rue de Seine, and presently you will come to a tiny street—the rue de Jardin—set between old garden walls, overhung with weeping willows; it is a very short little street and ends in two heavy old iron gates. You may push them open and step into one of the most entrancing and quaintest bits of old Paris, the tiny Cour de Rohan. Very old, very quiet, hidden away from the bustle of the boulevard. A paved court and four or five small houses with pink and grey walls adorned with some fine heads on marble and plaster plaques, and fine old balconies set beneath the windows. The stone and bronze wellheads, moss and lichen covered, send gentle streams of water into carved basins—the only sound that breaks the afternoon stillness.

If you go through the archway under that little pink house you will come into the forecourt and out into another little street that leads through the ancient Cour du Commerce, and about here some of the intimate history of France was woven. Over there in that old delapidated house Marat was stabbed by Charlotte Corday; Moliere lived in that quaint dwelling yonder, and to this selfsame cafe across the street, he used to go in disguise to hear the criticisms of his plays. Dr. Guillotine lived in and carried on his practice in that tall narrow house at the corner, and there invented the instrument of death still in use in the republic today.

In the rue de Vaugirard, number 224, is the old courtyard of The Lavoir du Soleil d'Or, formerly an ancient cabaret—the Cabaret du Soleil d'Or, where some of the chiefs of a conspiracy against the Directorate were arrested



IN THIS SMALL HOTEL LIVED PAUL DE GONDI, CARDINAL DE RETZ

in 1797. In the rue de la Chapelle, is the court of the ancient farm which faced the Inn of St. Genevieve, a charming old place and well worth the time spent in finding it. One of the most interesting perhaps of these old places—especially to music lovers—is the passageway to the house of Abbe Prevost of Exiles (Monsieur L'Abbe Prevost d'Exiles) the author of Manon Lescaut.

All these are parts of Paris little known, seldom seen, but well loved by those of us who come to Paris to spend our student days, whether we be in architecture, medicine, or history, and the hours spent in searching them out and in lingering in the quaintness of each, has repaid us with double interest for an investment which cost us but a little time.

Where the rue des Rennes comes into the Boulevard St. Germain, there is an open square which takes its name from the ancient Abbey of St. Germain, called St. Germain des Pres. This square is the center of the life of the quartier latin, and to those of us who live nearby the center of our lives also. Here we meet at one of the most delightful cafes of Paris, whose long terrasse has sheltered us on hot sultry afternoons when to move was a great effort, or when sudden rain squalls drove us not home but here in the hopes of finding others of us with whom to smoke and drink and exchange the news and watch the life that goes on each day in this fascinating little center, a never ending series of ever changing pictures. So interesting is this that one is very loath to make the start to one's quarters though it is long past the time and the street lamps are being lighted.

St. Germain des Pres is dominated by the old Ninth century church of the same name; partly gothic, partly romanesque, quite small but inside very rich and therefore something of a surprise when first visited. Part of the old abbey still remains and at one time was perhaps one of the most powerful of the abbeys in France, visited by high dignataries of the church as well as members of various royal households; legend has it that Hugh Capet visited the abbey unexpectedly one night and after an excellent dinner such as he himself could not set before a guest, remarked to the abbot, "Sir Abbot, by my troth abbots fare better than kings."

The old clock set high in the tower still sends

ENTRANCE TO THE HOUSE OF THE AUTHOR OF MANON LESCAUT

its chimes out over the roofs of the quarter, and to what one of us has not come its tidings telling us that midnight is here, either through rain that patters on our roofs, or when we have been standing on our balconies when the moon is at the full, and all Paris is bathed in silver.

The majority of our people who come abroad will not take the trouble or waste the time to visit these old haunts where wait the very things they came abroad to see, or they do not know that they exist. We pity them, yet we are glad that they do not invade us with clicking cameras, loud voices, or harsh footsteps, that might mar or break that spell of mystery and charm that dwells in all these old byways and lanes, courts and walled gardens of long ago.

THE OAK TREE INN, SAN MATEO

THE Oak Tree Inn at San Mateo (Pages 79 to 93), as it now stands, has been built in two installments. The original building, comprising everything to the right of the line A-A on the plan (Page 80), was designed for the restaurant by Morrow & Garren, architects, and built in the fall of 1925. The program will be obvious from inspection of the plan.

ANCIENT CABARET OF THE GOLDEN SUN

CHURCH OF ST. GERMAIN DES PRES

The building is built of a regular kiln run of surfaced hollow tile, left unplastered on both exterior and interior. The tile varies in color from almost buff to a light brick red, a medium tone of quiet pink predominating. Openings are spanned by concrete lintels cast in place, with surfaces left as they came from the forms. The bottom chords of roof trusses show as ceiling beams. Restaurant and Banquet Room have smooth hard plaster wainscots to a height at which patrons' clothes come in contact with the wall. All appearances are genuine. The ideal throughout was an atmosphere of well-bred but quite informal ease.

The main restaurant is 23 by 63 feet by 18 feet in height. The walls are tile as described, with wainscot of clear canary yellow in gloss finish. The floor is unmarked cement, treated with a medium dark olive brown acid stain. The ceiling is finished in dull blue and orange transparent oil stain. Tables and chairs are deep russet brown natural wood. Service is on unbleached linen and colored linen runners.

The banquet room is 23 by 28 feet by 18 feet in height. The walls are tile as described, with wainscot of deep blue-green in gloss finish. Doors are deep red, cornice and balcony are painted in several colors, and the ceiling is yellow transparent oil stain. The floor is oak for dancing (although it has later developed that the waxed cement floor of the Restaurant offers an equally ideal dancing surface). Drapes at windows and doors are black oil cloth with large-scale applique designs in bright colors.

The garden contains the large oak tree which gives the institution its name, and has tables arranged among the shrubbery, protected by vari-colored awnings.

In the summer of 1926 the lunch room (to the left of the line A-A on the plan) was added and the main kitchen enlarged. The Lunch Room was an alteration of an existing store, and, with the openings through into the original Restaurant, was designed by Morrow & Morrow, architects.

This room is 15 by 48 feet by 18 feet in height, with a mezzanine balcony 22 feet long and 7 feet deep opening off of one side. It comprises candy counter, soda fountain with service counter, and continuous wall benches with movable tables. Here the treatment is purposely more vivacious than in the restaurant proper. The walls are rough canary yellow plaster, the floor unmarked cement treated with a deep russet brown acid stain, the ceiling blue on gray. Behind the wall benches is a canvas wainscot of deep blue-green, bounded by a heavy molding of Chinese red. The back-bar is in the same blue-green, with the same red inside. The running cushions on the wall benches and the curtain hung behind the iron railing of the mezzanine balcony are purple. The soda fountain counter front is polychrome tile, predominantly green and russet. The entire entrance composition, comprising doorway and open-work window back, is gold.

THE EIGHTH NATIONAL CONFERENCE ON STATE PARKS AND STATE RECREATION

THE National Conference urges all of its members and friends to make their plans now to attend the Eighth National Conference in San Francisco, June 26, 27, 28 and 29, 1928. This will be one of the most important meetings ever held and the time will be spent in carefully planned conferences and trips of inspection.

California is to make the most of one of her greatest assets. A State Park Commission has been created which will administer all state parks under the newly created Department of National Resources. A survey of state park possibilities has been authorized and a fund of $15,000 provided for this survey, and a bond issue of $6,000,000 to finance half the cost of the acquisition of park lands will go to the voters for approval in November, 1928.

California already owns a splendid nucleus of parks, in the 9,000 acres of redwood forest in the California Redwood State Park in Santa Cruz county, the 3,000 acres of redwoods in Humboldt and Del Norte counties, the Mt. Diablo State Park of 580 acres in Contra Costa county, and the Burney Falls State Park in Shasta county, 13,000 acres in all.

The program of the National Conference has not been worked out as yet, but an interesting outline has been formulated. The first day of the conference will be spent in formal sessions at the hotel which will be the headquarters of the meeting, with several illustrated addresses in the evening. On Wednesday, the 27th, the business sessions will be held in the out-of-doors, with a trip to Mt. Tamalpais, lunch at the tavern, followed by a trip to Muir Woods for the afternoon session. A barbecue will be held in this very beautiful National Monument in the evening. On the 28th business sessions will be held at the hotel, leaving by train in the evening for Dyersville, California, where on Friday the concluding sessions of the conference will be held—again in the out-of-doors—in the Humboldt State Park.

The conference has been fortunate in securing for field work during the last quarter of the year the services of Captain Charles G. Sauers, assistant to the Director of the Department of Conservation.

Captain Sauers is a graduate of the class of 1915 of Purdue University. He was engaged in extension work in landscape gardening for Purdue in 1916 and attended the Harvard School of Landscape Architecture in 1916-17. From 1917 to 1918 Captain Sauers served as a Captain of Field Artillery in the World War. He has been with the Department of Conservation of Indiana since about six months after it was created, and in 1919 was appointed assistant to the director. Colonel Lieber says of him: "Much of the results of the cause of Conservation in Indiana are due to Captain Sauers' intelligence, hard work and fine enthusiasm. He has helped in the building

of the department in large measure and understands the work of its intricate machinery as thoroughly as I do. During my prolonged absences from the department he has taken my place and filled it to everybody's and my own satisfaction."

Most of Captain Sauers' time will be spent in California, Oregon, Washington, and North Dakota, where he will aid in the many big problems before those states. In California a broad-gauge state park program will be developed, in Washington and Oregon great interest has been aroused in this important movement, and in North Dakota the conference is lending its co-operation in the creation of the Roosevelt State Park in the Badlands.

The conference believes that, particularly in view of his thorough knowledge of and actual experience in park development, Captain Sauers' visit in the West will be very helpful to those who are interested in the preservation of natural resources and productive of many accomplishments.

HIGHEST SPAN BRIDGE

In the World

THE Twin Falls-Jerome Intercounty bridge, the highest span in the world, recently completed over the Snake River Canyon in southern Idaho is receiving attention all over the country, not only because of its champion height, but because of its unusual engineering features.

This bridge was dreamed, specified, financed and built in Washington and Oregon. It is owned by the Twin Falls-Jerome Bridge Company of Seattle, and was built by the Puget Sound Bridge and Dredging Company of Seattle. The cost of construction is estimated by Sam Murray, consulting engineer of Portland, at $850,000. Actual construction was begun last January and completed the following September. The bridge was formerly opened and dedicated October 1, with Governor Baldridge of Idaho making the official address.

Facts concerning the super-structure as compiled and written by R. M. Murray, M. Am. Soc. C.E., chief engineer, who located and designed it, are briefly as follows:

"The total length of the bridge is 1400 feet; the main opening, 700 feet; width of roadway, 27 feet; height of roadway above ordinary water, 476 feet; height of roadway above river bed, 502 feet.

"A rather careful search has been made through engineering literature to ascertain the height of the various high bridges in existence. This one is without a doubt the highest ever built for highway or railway traffic.

"The nearest approach to height is that of the St. Giustans in the Tyrol, having a span of 197 feet and measuring 453 feet above the water.

"Because of the magnitude of the landscape about the Twin Falls bridge it is at first difficult to grasp the size and proportions of the work. As a comparison, one might note that the length of the bridge is almost equivalent to four ordinary city blocks and nearly one and one-half blocks high. It is 370 feet from the floor down to the lower base and more than 100 feet from this base down to the water line. Larger tower bases of towers on either side of the channel are 95 feet apart. The insignificant looking cast steel pedestals on top of concrete piers supporting the steel tower posts weigh 5500 pounds each. The heaviest single member placed in the structure weighed nearly 25,000 pounds. There are 2900 tons of steel in the structure. If this steel were forged into a solid bar 1400 feet long, reaching from rim to rim of canyon, the bar would measure 35 inches on each side.

"There are 98,750 individual pieces or parts of steel in the structure above foundations, not counting the rivets holding parts and members together. At the shop where members were fabricated, groups of these parts were formed and riveted to compose a member. In the field members were placed and field riveted to form the complete structure. It required 75,448 rivets to be driven in the field to connect members into the finished structure.

All the individual parts and members made up from them had to be designed and drawings made for the use of shop workmen and erectors in the field. This involves a great amount of work on a large structure. Dimensions must be carefully worked out so it will safely carry the loads producing stresses accurately computed so the parts and members will fit together in the field.

"Effects of temperature variations and the deformations of the steel itself under stress must be taken into consideration in designing and in the field engineering for erection. A steel structure 1400 feet long will change in length 10 inches when free to expand or contract, due to 100 degrees variation in temperature.

"There are 4560 tons of concrete in the tower piers, anchorages and abutments, reinforced with 60,000 pounds of steel bars. If placed end to end, these reinforcing bars would extend a distance of more than four and one-half miles.

"The most approved standards were maintained in the manufacture of the steel, in its fabrication and during its erection."

BETTER REFRIGERATORS NEEDED

According to experts, fifty to one hundred percent more ice than necessary is being used in household refrigerators on account of inefficiency of their construction. What is worse, food is not being nearly so well preserved, as if refrigerators were better made and better insulated. This is not ascribed to difficulties of manufacture, but to the fact that the consumer, and distributors who have supplied him, have bought more and more on the basis of white enamel, and nickel handles, and other desirable but non-essential characteristics. As a result good insulation and sound design, which are essential but concealed qualities, have long been slighted.

The American Engineering Standards Committee, upon request of the American Home Economics Association, is to call a representative conference of those concerned, to consider the desirability of establishing specifications and standards for household refrigerators which will assure their being well constructed and efficient, and establishing, if necessary, a number of carefully defined grades.

TWIN FALLS, JEROME INTER COUNTY BRIDGE, IDAHO

R. M. Murray, Chief Engineer

THE SEATTLE NATIONAL BANK, SEATTLE, WASHINGTON

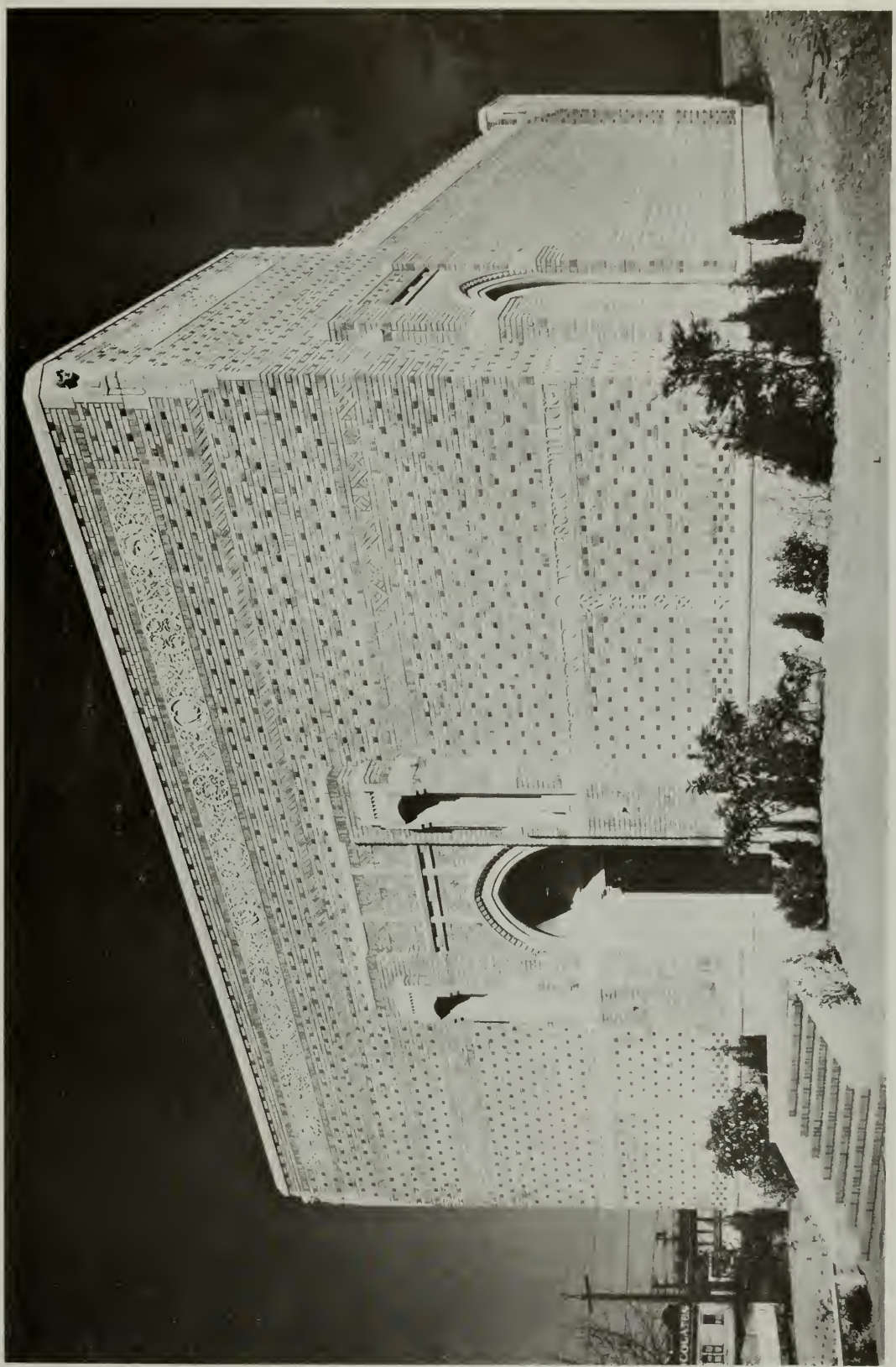
DOYLE AND MERRIAM, ARCHITECTS

HOUSE OF JOSEPH L. CARMAN, SEATTLE, WASHINGTON

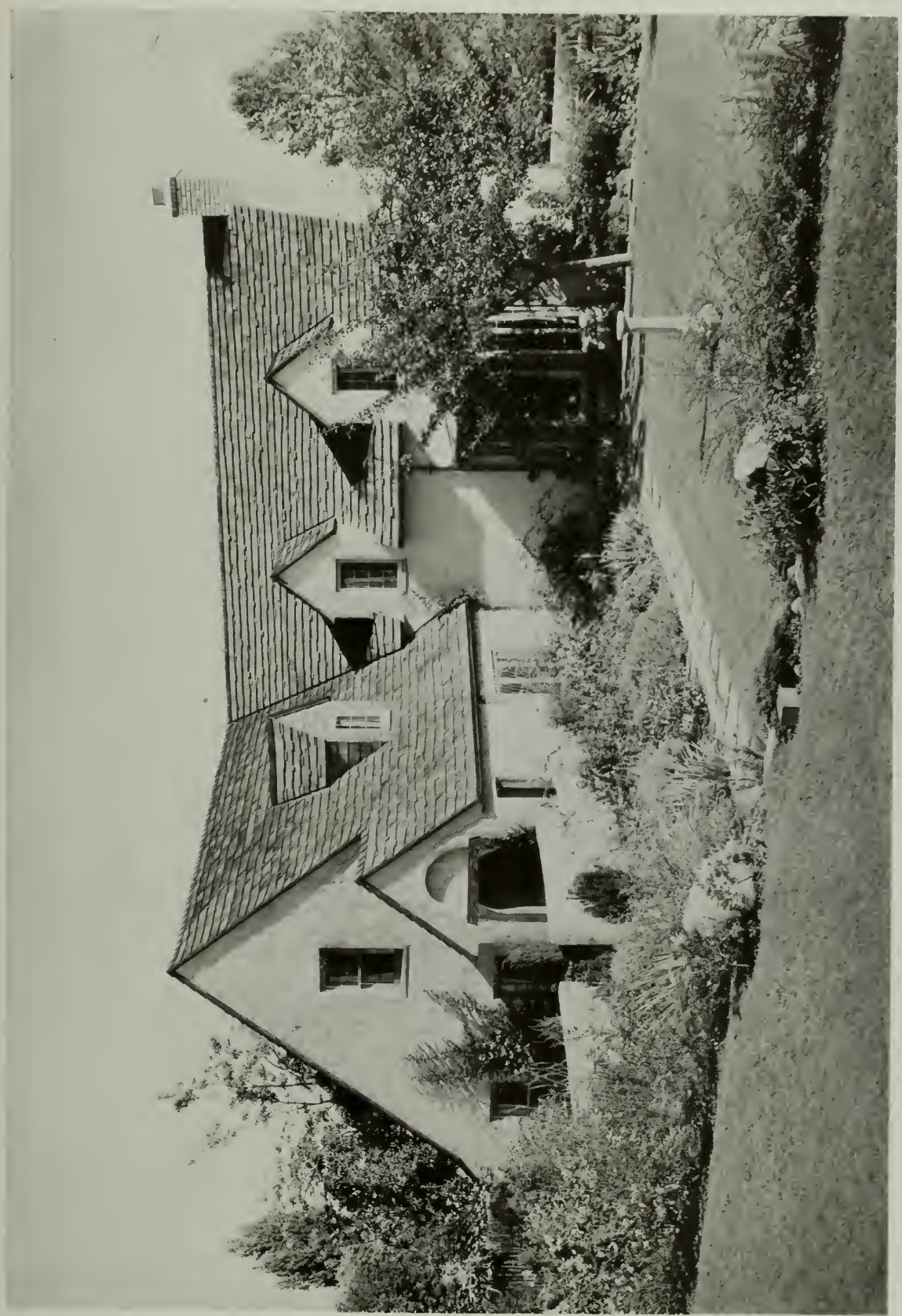
WILLIAM J. BAIN, ARCHITECT

METROPOLITAN THEATER, SEATTLE, WASHINGTON

HOWELL & STOKES, A. ALBERTSON AND ASSOCIATES, ASSOCIATED ARCHITECTS



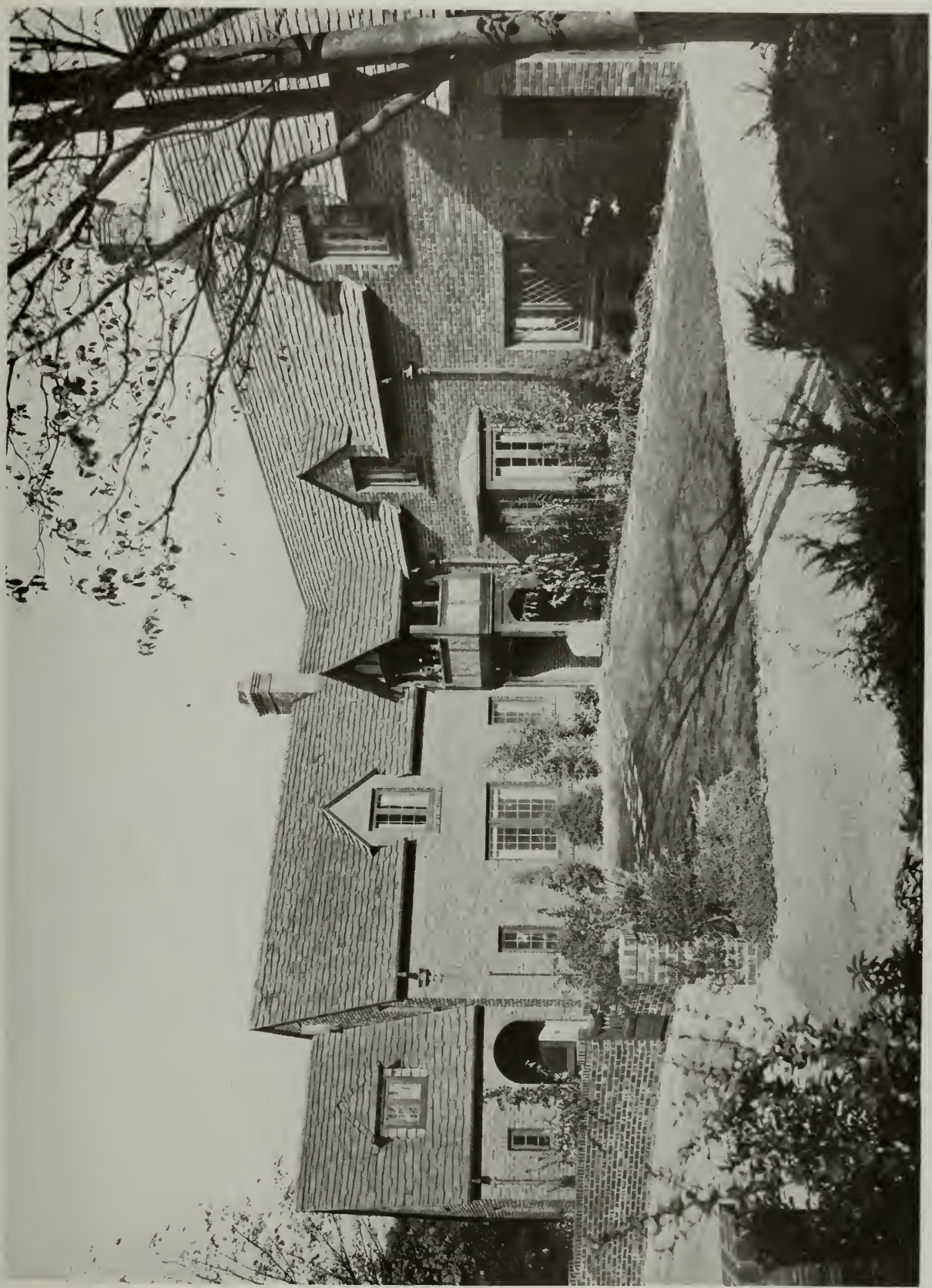
HENRY ART GALLERY, UNIVERSITY OF WASHINGTON, SEATTLE
BEBB AND GOULD, ARCHITECTS



HOUSE OF ARTHUR L. LOVELESS, SEATTLE, WASHINGTON
ARTHUR L. LOVELESS, ARCHITECT

The ARCHITECT AND ENGINEER

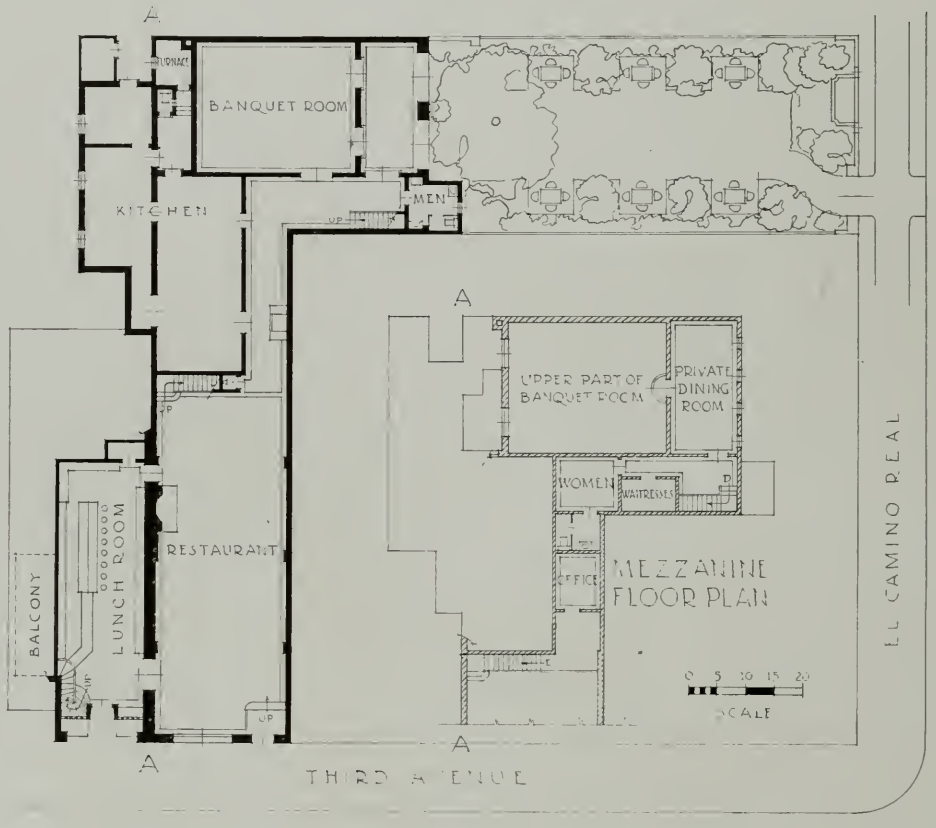
HOUSE OF O. W. FISHER, JR., SEATTLE, WASHINGTON
J. LISTER HOLMES, ARCHITECT



HOUSE OF DARRAH CORBET, SEATTLE, WASHINGTON
ARTHUR L. LOVELESS, ARCHITECT

OAK TREE INN, SAN MATEO, CALIFORNIA

MORROW AND GARREN, ARCHITECTS



PLAN, OAK TREE INN, SAN MATEO, CALIFORNIA

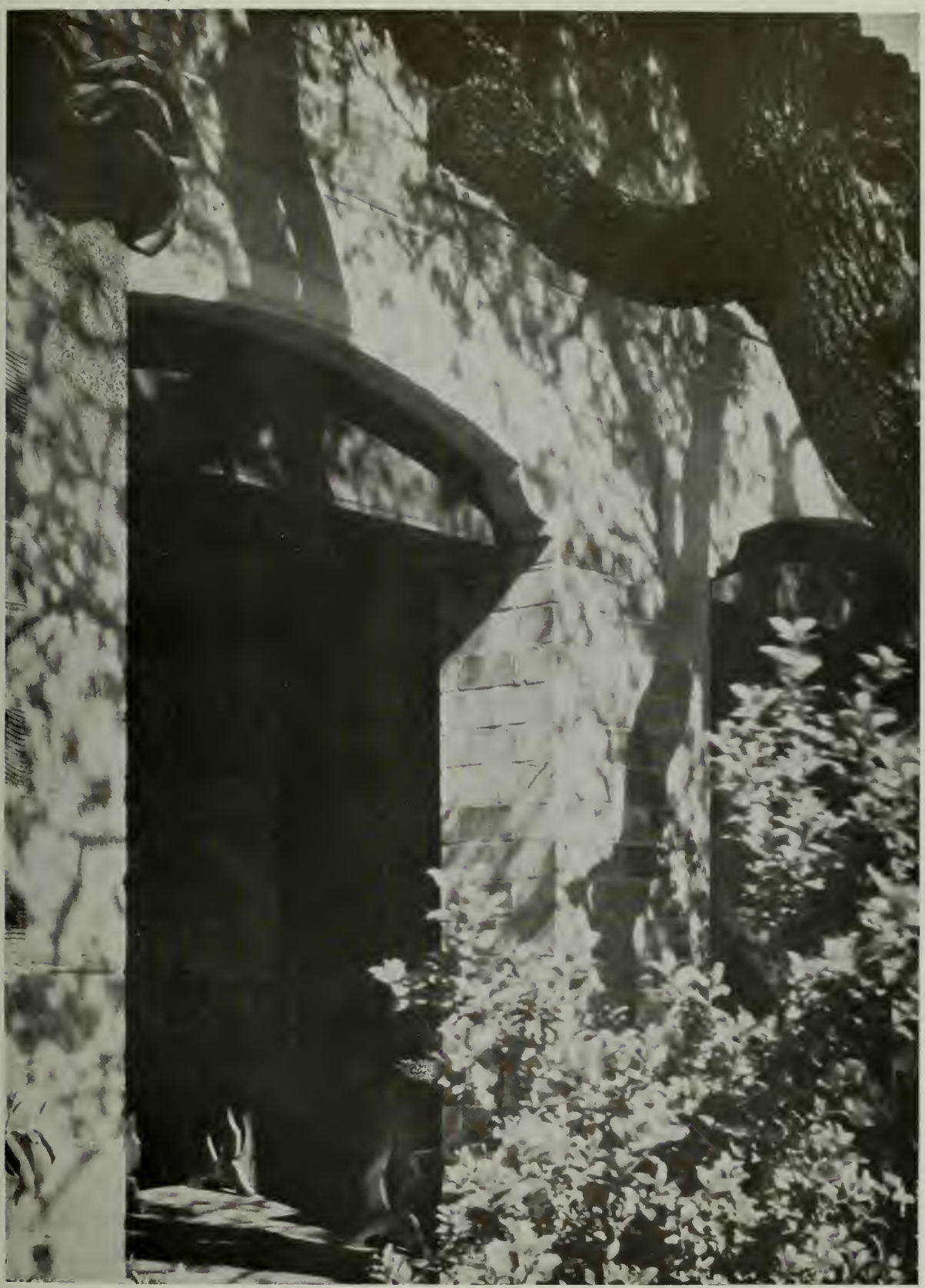
MORROW AND GARREN AND MORROW AND MORROW, ARCHITECTS

LUNCH ROOM, OAK TREE INN, SAN MATEO, CALIFORNIA

MORROW AND MORROW, ARCHITECTS

OAK TREE INN, SAN MATEO, CALIFORNIA

MORROW AND GARREN, ARCHITECTS



Built of Brooks Faced Tile

OAK TREE INN, SAN MATEO, CALIFORNIA

MORROW AND GARREN, ARCHITECTS

OAK TREE INN, SAN MATEO, CALIFORNIA
MORROW AND MORROW, ARCHITECTS

OAK TREE INN, SAN MATEO, CALIFORNIA

MORROW AND GARREN, ARCHITECTS

OAK TREE INN, SAN MATEO, CALIFORNIA

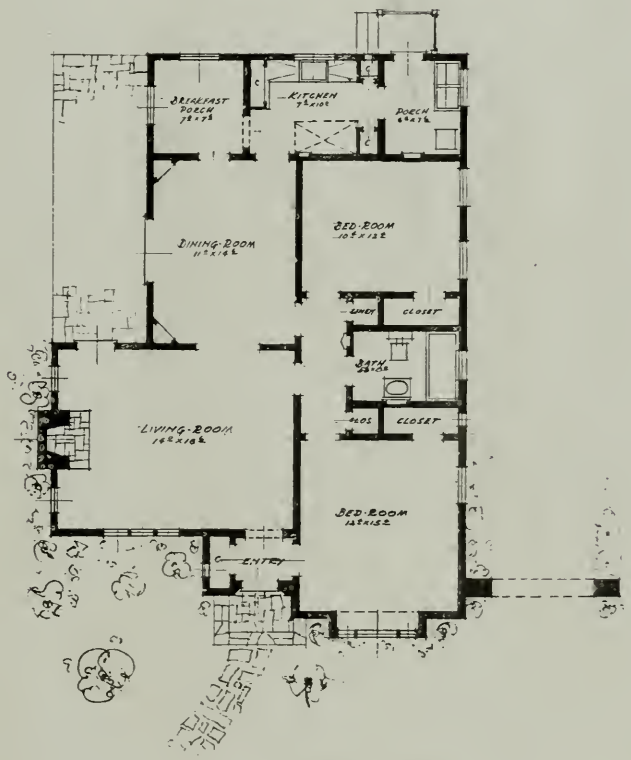
MORROW AND GARREN, ARCHITECTS

OAK TREE INN, SAN MATEO, CALIFORNIA

MORROW AND GARREN, ARCHITECTS

HOUSE FOR CAPTAIN BODLEY, BURLINGAME, CALIFORNIA

Designed by Russell B. Coleman



PLAN, HOUSE FOR CAPTAIN BODLEY, BURLINGAME, CALIFORNIA

An Architect's IMPRESSIONS of HONOLULU

By B J S Cahill

IT IS probable that a majority of mankind have never seen the sea: it is certain that a majority have never been on it. The love of sea travel confined to coast-wise and insular races therefore, in a small minority through the ages developed a yearning for the deep which is in the blood. For this reason to proclaim one's enthusiasm for ocean travel, is a call for scant sympathy. The man who enjoys the cold water tub in winter time had better keep his enthusiasm to himself. However, at the risk of being thought a braggart or worse, I make the plain statement that of all possible forms of passive pleasure none comes up to a sea trip. There is no music like the deep siren note of departure, so long as I am at the right end of the gang plank. Nor does it matter where I am being transported, nor in what kind of a vessel. No doubt it was a kindred spirit who first used this word "transport" in its secondary sense, feeling as I do, the ecstasy, the "transports" of transportation.

The business that took me to Honolulu necessitated my forty-ninth sea voyage and the return trip made up a sort of golden jubilee in travel which needs some celebrating. Since I have never once been seasick I propose on this occasion to give out the 'secret of my success' in this important particular. Lots of men are masters of millions on land: very few of them can master their stomachs at sea. And I commend my infallible receipt to the editor of the excellent little "Daily Polynesian" of the Matson line for the benefit of all travelers.

The rule which will insure immunity from seasickness is very simple. **"Move with the ship."** But as a cynical critic asks "How in Heck can you do otherwise" this rule needs expanding and explaining like a text from scripture. The mind and spirit must move with the ship voluntarily and harmoniously and this is not so easy to do unless one deliberately wills it. One might theorize on the problem of co-ordinating the motions of a double frame of reference, which in reality is a problem in practical relativity. But a few plain directions will be more to the point. No able bodied man or woman who can play golf or drive a car need ever be sea sick if he or she would give a little thought to the really glorious sport of "riding a deck" just as one rides a horse or a surf board, though these two last are much more difficult. By way of prelude I will first give the rule for being sea sick. Make up your mind you are going to be an early victim, go to your state room prepared for the worst, make everything ready, lie down and "give up" and of course in due season you will "throw up" and the horrible business is on for the rest of the trip.

The first rule for avoiding all this is to make up your mind that you are not going to surrender to the waves but that you are keen for the glorious sport of conquering them. Each forward leap of a galloping horse, if reduced to the slow motion tempo of the movies, would give a motion not at all unlike that of a pitching ship, that is of a ship going over waves that come directly towards you. This motion on a ship is deliberate and quite dignified and its three phases, first tipping up in front, then rising in the center, then tipping up at the stern and falling,—all this can be learned with the utmost ease, but only on the following conditions, that you are standing on the deck with as much of the horizon in view and as little of the ship as possible. To remain in a cabin or a state room or near upright partitions of a ship is fatal. The reason is simple. The ships position in this case will dominate your senses, and you have surrendered or lost your normal position with the world which you should never do else you become the plaything of the motions of the ship instead of their master. To put the matter in another way, suppose you are a good rider. Now imagine yourself seated in a telephone booth without windows, and suppose that this telephone booth suddenly moves forward with all the complex motions of a galloping horse, the very gait of your own horse.

Unless your mind recognized the unexpected motion you would be very uncomfortable and soon very sick, but as soon as the motion was recognized and co-ordinated with your experience in riding, all the otherwise bewildering movements would at once become harmonious, familiar and even delightful.

Thus when you have once learned by observation the natural movements of a ship moving over waves from different directions and have schooled yourself to follow them in your mind, as a good rider moves with his mount, you will continue to follow these movements unconsciously. And then it is immaterial whether you are on deck, in the smoker, or in bed. Instead of fighting and hopelessly resisting those motions which bedevil you so nauseatingly, you will derive unending pleasure in following in the mind the procession of giant mounds of water as they pass under the keel: lifting and tilting the great liner in its stately though sinuous progress over the ocean.

But as we said at first "riding the waves" can only be learned by planting oneself as near the bow as possible and spending long hours in keeping an erect position as the deck rises and falls, dips and twists and rolls under one's feet. It is a glorious and fascinating sport and if mastered on one's first voyage will add enormously to the joy of living for the rest of one's days—to avoid seasickness, then, move with the ship!

It will interest many of the readers of this magazine to know that, in the opinion at any rate of the writer, of all authors from Conrad down to Clark Russell, including many other masters of sea lore, none have written more accurately or more knowingly of the ocean in all its moods than, of all people one would guess at, John Ruskin in "Modern Painters"!

Since two-thirds of this voyage was on the water a word here on the color of the Pacific is not amiss. In the bay the water is a more or less muddy green. Outside, the tone changes to a purer green deepening to grey-green. When beyond the continental plateau the color becomes a blue-grey. When nearly a thousand miles out the color changes to a purple-blue of a tone which is literally unearthly. Nothing on land is like it because of an indescribable quality of purity or cleanness and a way of reflecting cloud light which seems yellowish, into dapplings of pink. One recalls that many painters have tried to put this on canvas and some German prints have pretty well caught the main combination. The surpassing glory of the reality defies the artist. Looking down at the ship's bow the rich peacock blue of the deep mottled with the pale jade green of the churned up spume gives a moving color symphony fascinating to look at for hours on end.

On the outgoing trip most of the passengers were returning to their homes in the Islands, "where life is better." While unconscious or ignorant of this particular slogan they all lived up to it, and it certainly seems a wonderful dispensation of providence in so diversified a world that, as the famed author of "The Traveller" said long years ago, in every spot on earth "life is better" to the man who lives there! Among these passengers we had the wife of a celebrated man, Mrs. Jack London. Years ago I sailed to Victoria, B. C., with a Mrs. Andrews, at that time next to Mrs. Byrd said to be the most travelled woman in the world, but Mrs. London, I should say, has both records combined beaten by many leagues. She was kind enough to trace on a Butterfly map of the world the routes of the "Snark," "Tymerick," "Dirigo," "San Francisco," and "Balboa," all specially chartered or privately owned vessels whose total log showed over 60,000 miles, and this entirely exclusive of innumerable voyages on regular liners.

Had Jack London lived, it is likely that by this time he would have largely outgrown his socialism, though there can be no question that any thinking young man who never felt a leaning towards those vague altruistic doctrines which we call socialism is hardly worth his salt. We are all socialists at heart if we thought the thing would work. We are all pacifists in the same sense. By a strange contrast on our way back from the Islands, we had with us the wife of another very distinguished man, no less than A. P. Giannini, the local banker. And I found it curious to note that while the wife of the eminent socialist, author rather soft-pedalled his bohemianism and 'red' outlook and on her own part was a wee bit exclusive, Mrs. Giannini, wife of the capitalist banker, was decidedly democratic and became chummy with all the women on board.

The one thing that went home to me on the superbly beautiful Island of Oahu, was the fact that all bill boards and roadside signs were absolutely tabu. To put this rule over I understand the women of Honolulu had to buy out one advertising concern by putting up $10,000 of their own money. But the thing is done. Such a splendid feat puts the Mainland to shame!

The city of Honolulu has many surprises. Some specimens of remarkable good architecture arrest attention like the Hawaiian Bank where a rich Italian Renaissance beamed ceiling is decorated with Polynesian tapa motives with immense success. An Art Gallery and Museum of reposeful design with big hipped roofs somewhat flattened at the eaves and done in terra cotta tiles of a quite unusual purplish-brown hue, recalling the weathered thatch of the native Hawaiian huts, shows how well local tone can be perpetuated when intelligent effort is directed to this end. Already the phrase "Hawaiian Renaissance" is in the air while notable examples of it are already on the ground. The interior of this Museum, a group of exhibition rooms giving on to a most entrancing series of gorgeously gardened patios and flanking "lanais" with appropriate lotus ponds and moss bordered flagging incomparably composed, results in a succession of impressions which, though all too hastily seen will take very long to forget! Of course the vivid glorious flora helps the picture. But it must not be overlooked that mere wealth of material, unless marshalled in proportion and handled with restraint, even in the luxuriant tropics might easily be oppressive and confusing. Indeed the placing of the oriental and polynesian art objects alone presents a veritable model of what a permanent exhibition should be; a few examples in each class, but these set with so much art and distinction that they tell their story to the limit of both elegance and eloquence.

The Royal Hawaiian Hotel is on the whole a gorgeous structure. The exterior, it is true, lacks a dominant feature. The two rather inadequate towers quite fail to give the unity one should expect. But the immense Gallery and Lanai facing the great grove of cocoanut palms, the beautiful fish pond, and the wide, wide terrace with the gleaming surf and level blue Pacific beyond, surely realizes a dream picture with few rivals anywhere in the world. In the wealth of furnishings, colorful and wonderful tiling, rugs, bronzes and unique furniture, there is nothing in San Francisco quite up to it.

The Post Office also is notable as expressing more fully the real needs of a building in subtropical latitudes in place of the merely transplanted products of the fog-bound mainland by the liberal use of wide lanais or porticos, which serve also as main corridors. Why close them in when the temperature is usually about 70 in the shade?

Here you call for your mail and do business at various wickets which are virtually out of doors though under cover. In this respect the building is a great success practically and pictorially. The center pavilion rises in the form of a tower in the uppermost story of which is the Weather Bureau. To reach this, however, one has to climb up five flights of steps and I sincerely hope that the architect of this building will not be visited by a fraction of the awful maledictions heaped upon his head by a certain perspiring "malihini" who had occasion to make several visits to this department. Mr. E. A. Beals, the meteorologist, tells me that the need of climbing these steps several times a day was one reason for his resignation from the directorate of this Observatory!

My interest in the weather as a science is connected with the Conformal Variant of the Butterfly Map which has just been officially discussed before The Upper Air Commission at Leipsic and later at the Geophysical and Geodetic Union assembled at Prag. The map is being considered for daily synoptic charts for all nations which can be assembled into world maps after the daily record has been overprinted. My several climbs up these many steps was worth the trouble, because when I called on Mr. Voorhees, the present director of the Honolulu Observatory, he informed me that Dr. Andrew Thompson, the director of the Apia Observatory in Samoa, was in Honolulu for a few hours on his way back from the convention at Prag, having come from Europe by way of the Canadian Pacific and Vancouver. So by this extraordinary coincidence I was able to meet him and learn what had transpired. Not only was he quite familiar with the map, but at the Prag meeting it was he who helped to pin my diagrams on the wall for the delegates to look at and discuss!

An invitation to be a guest at the regular Friday dinner of the Pan-Pacific Union was much appreciated though I hardly expected to give a talk on the map. Many of the scientists present were entomologists, as the insect question is a most vital one. So I addressed the gentlemen as a fellow "bug" expert with a novel species of the order "lepidoptera" which I felt sure would be new to them, the butterfly map! Later we had a most interesting lecture on white ants or termites, and how they destroy wood work.

On all hands I heard of the very lovable character of the native Hawaiians. They are gen-

erous to a fault and will go out of their way to avoid hurting your feelings. Nor is this a mere form of animalism or a baseless tradition. It is a reality everywhere visible and just as the red Indians of Colonial times are said to have bequeathed certain characteristics which are now a permanent asset of the American people, so one gets the impression that the Hawaiians have infused something of this friendly Aloha spirit into the missionaries and early settlers. It seems at this date to be diffused into the whole community. This, with climate, has made over the cold, hard New England adventurers into a most friendly and warm-hearted community. The very transportation company, The Matson Line with all their officials, seem to act from different motives to those of other lines. I can vouch for this by comparing my first 48 voyages with the last two. The music which at the send off calls forth rather cynical misgivings, works into ones system en route and takes on a new, sincerer aspect on arrival. The beautiful "leis" of fragrant ginger flowers with which your friends so solemnly bedeck you at the wharf, rather provokes the suggestion of a cannibal king in a comic opera; but, after a sojourn among these warm-hearted people and when this ceremony is repeated at your departure, all flippant thoughts have flown and this floral investiture takes on a solemnity which moves the heart profoundly.

It must not be supposed that these racial characteristics are peculiar to the Hawaiian Islands. They appear to be common to the whole of Polynesia. And in spite of the enormous distances between these groups their ethnological unity is suggested in many ways. I had hardly been in Honolulu an hour before passing a bareheaded Hawaiian whose physiognomy was both strangely odd and yet strangely familiar; peculiar skull shape, gaunt cheek bones, trumpet-shaped nose; where had I seen this type before? Suddenly came the answer, **the pictures of those colossal stone effigies facing the sea on far-away Easter Island.** The resemblance was unmistakable. And if a race could carve these images to advertise their presence while marooned on a lonely island, why should not the same people exercise this talent in the huge monoliths of the Marianas? It is also a fact that the Maoris of New England, as well as the Samoans and Marquesans, can all understand one another's speech, much as the Welsh and Bretons do in Europe. Thus the virtues of the Hawaiians are partly shared in common all over the Pacific as the ample testimony of Stevenson, London, O'Brien and other authors so eloquently proves.

In conclusion I want to say something about a remarkable citizen of Honolulu, Mr. Alexander Hume Ford, Director and Founder of the Pan-Pacific Union. The strange mixture of races and religions found in the Islands has developed a very remarkable spirit of mutual tolerance, an outgrowth of the Aloha spirit, which impressed me more than anything else that I saw. This spirit seems to be personified in the man Ford who has come to be a sort of Institution. I am told he is personally known and trusted by all the governments touching the Pacific, and here at the crossroads he works quite disinterestedly (hence his power) for the friendly co-operation, political, social or scientific, of all races and peoples bordering the World's greatest ocean. He is no specialist in any line, but rather like what chemists call a "catalist," he precipitates innumerable actions and reactions in others, but is not a part of any one of them, consequently he is always free for fresh problems. He began by organizing and reviving certain sports such as surf board riding, and from that he has gone "from strength to strength" as the psalmist says, in organizing things of more importance and it would not be surprising if, in the end, he established Immanuel Kant's dream of Perpetual Peace in that part of the world where at any rate such a thing seems most appropriate, viz. on the Pacific Ocean.

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Architectural Criticism

ON ANOTHER page of this issue Mr. Irving F. Morrow, who has for some years been contributing criticisms and general articles to The Architect and Engineer, discusses The Problem of Architectural Criticism. Mr. Morrow speaks from personal contact and reflection, and the subject he treats is one which cannot fail to interest both publishers and readers of architectural magazines. The Architect and Engineer will welcome further discussion and expressions of opinion from its readers.

Public Opinion

ONE of the County Commissioners of Cook County, Illinois, expressed this opinion regarding the selection of an architect for the proposed new Civic Hall, according to the Bulletin of the Illinois Society of Architects:

"This is a simple job, just four walls around an arena and a stage, and anyone of the 701 architects in the Chicago telephone directory could furnish plans. There is nothing to an architect's job anyway. He sends out a $50.00 a week superintendent to do all the work"

The above should prove amusing to members of the profession or layman familiar with an architect's work. However, it does cause one to stop and ponder as to how many people in these United States are of the same opinion as the Commissioner. Undoubtedly, one of the biggest tasks facing the architectural profession today is educating the public into a keener appreciation of architecture and a better understanding of the men who practice it.

More Skyscraper Eulogy

SKYSCRAPER criticism continues to absorb many pages of our current magazines, mostly emanating from professional writers who, for want of something else to talk about, have picked upon our tall buildings as affording them the greatest latitude for rhetorical expression. Waldo Frank, in the December McCall's, condemns the skyscraper as a nuisance, "builded with wealth rather than with wisdom, and not with love so much as with desire."

The author declares it is a mistaken notion that skyscrapers are necessary because men are cramped for space. "That is a myth without truth," he says, and in defense of his assertion points out that "when skyscrapers began to shoot against the skyline of the Hudson river, the Island of Manhattan was full of empty lots and of deserted houses. Men left old, low buildings where there was plenty of room, for expensive and cramped quarters in new high ones. Side by side with the towers of Broadway there were (and are) streets filled with neglected houses.

"The motive of the American skyscraper is the old one. Like the builders of the tower of Babel, we have builded higher than we knew: in the mobile symbolism of the Bible, we have builded 'without the Lord.' We shall have to clamber down, and begin all over. The time will come when we will know that these monuments of a vaulting will were a beautiful fiction.

"The mature American will recognize in his skyscraper the monument of his spiritual childhood. He will tear it down; and closer to earth he will begin to build in a way more truly near to heaven."

A Worthy Organization

NATION-WIDE support should be given the promoters in their efforts to organize an Architectural Appreciation Commission. Already the success of the venture seems assured. Its purposes are many fold and commendable.

The Architectural Appreciation Commission, as proposed, will be a non-profit organization financed and sponsored by a group of public spirited men and women to awake in this country a better appreciation of architecture. It proposes further to establish in the art museums a permanent architectural exhibit; to bridge the existing gap between the architectural profession and the public; to secure architectural plates for study for the non-profes-

sional public schools; to create regional architectural clearing houses where loan—or traveling—exhibits and architectural reference material of use to the layman may be secured; and to maintain architectural lecture bureaus.

Undoubtedly there is a great field for the successful operation of this commission and financial support should be given it by the great industries that will indirectly benefit from the bigger and better building activities that are likely to follow in the wake of the commission's publicity work.

The Missions of California

IF WE were to ask who was Henry Chapman Ford you would probably just assume we had made a mistake in the middle name, and reply that Mr. Ford makes something resembling automobiles in Detroit. For which you would have to go to the foot of the class.

This Henry Ford was an artist of some distinction; and the only things he made in series were paintings and etchings of the California missions. He worked in California roughly from the mid-seventies to the mid-nineties of the last century. His pictures show the missions, therefore, mostly as they stood during the late seventies and early eighties; and while only too much deterioration had already taken place, a great deal of the most deplorable destruction and unintelligent restoration has occurred since that time. Ford's paintings and etchings are valuable, then, not only artistically but historically.

In 1883 Ford published a set of twenty-four etched plates embracing all the missions but San Rafael, with two views each of Carmel and Santa Barbara. Beginning with the January number, The Architect and Engineer will print reproductions of these etchings as a series of frontispieces. This is going to constitute a handsome set of documents, both for those interested in the missions in particular, and for those who enjoy delightful art for its own sake.

Views and Events

AS fast as you think you have laid trouble, up it bobs from a new quarter. Feeling that the main problem confronting the American architectural magazine was whether it should print criticism or bunk, I took the trouble to go into the matter in considerable detail in an article which appears between these same covers. Well, I thought, this magazine business is finally settled. No sooner do I get comfortably back into my easy chair than a new question arises — whether the architectural magazine is purveying art or news.

There are journals, it seems, which accept certain material for publication only on condition that they get it first. Presumably this is what goes in current business by the name of enterprise.

I resent the philosophy of the "scoop" in artistic affairs. Either a building is worth being published or it isn't. In the former case its value is in no wise affected by its having been previously shown. In the latter case there is no more use discussing priority than any other phase of publication.

A magazine owes it to its readers to print the significant architecture which is done. Now obviously a building can be shown first by only one journal. The consistent application of stickling for priority, therefore, would mean that readers of a magazine which failed to get a "scoop" on a particular building would never get that building at all.

This brings up the question of duplication among the magazines. Should it be assumed that they are all to publish the same material? And is it a reasonable presumption that everybody interested in architecture subscribes to all of them?

While the latter may be true in cases, I hardly think it can be the rule. Not every architect can build an archive building, even though he may be able to muster up the combined subscription prices. It was precisely on the supposition that all architects do not take all magazines that The Architect and Engineer instituted its monthly survey of the architectural press, so that its readers may inform themselves of the contents of books not regularly seen.

As to buildings shown, complete duplication is no more likely to occur than it is desirable. Certain few journals exploit deliberately circumscribed fields. It is understood, for instance that, except for rare excursions, The Architect and Engineer confines itself to the Pacific Coast. However, most of the architectural magazines presume, by implication at least, to cover all kinds of work from all parts of the country. There are buildings which every such journal should be under obligation to present to its subscribers, no matter how many other places it has been shown in, and failing which the subscribers have a right to feel themselves cheated.

Editors will reply that there is too much architecture being done, even architecture of more than ordinary distinction, to be shown by any one magazine. Granted. Only it would be the part of intelligent policy to choose on some basis more valid architecturally than priority of publication. We shall lend a more sympathetic ear to this plea when the magazines adopt more rigorous criteria of selection. The very best of them include things which could be omitted without loss to anyone but the architects concerned.

Of course a magazine may adopt any editorial policy it chooses, and it is nobody's business so long as its particular bias be made known. Anyone who dislikes the policy need only avoid the magazine. One of them recently announced editorially that, aiming to constitute itself a contemporary record of American architectural evolution, it felt obliged to exclude all work dating from a few years back, and confine itself to the contemporaneous in the strictest sense of the term. Think what you will of the wisdom of the policy, there can be no question of the legitimacy of following it after it has been stated.

One could admit a magazine's right frankly to announce that it has entered the field of competitive journalism, that it regards architecture as news, and will touch none of it which a contemporary has deflowered. So far as I know there is none which has gone about it in so direct a way. I. F. M.

* * *

FAULTY BUILDING CAUSE QUAKES

The art of earthquake-proof construction has engaged the attention of architects, engineers and seismologists for a great many years. There are whole books devoted to the subject, to say nothing of a host of articles in the technical journals. Nearly a decade ago the distinguished French seismologist Count F. de Montessus de Ballore declared that the art had already reached such perfection that only a few minor details were still a subject of controversy. After visiting the scene of the great Messini-Reggio earthquake in 1909, Professor Omori, the Japanese authority, expressed the opinion that out of every thousand persons killed in that terrible disaster 998 must be regarded as victims of the faulty construction of buildings.

Dr. Bailey Willis, a veteran American geologist, has lately returned from Chile, where he was sent by the Carnegie Institution of Washington to investigate the earthquake that occurred in that country. He is credited with the statement: "When it came to the point of a verdict which should place the chief responsibility for the disaster upon the right shoulders, we could not convict the earthquakes. Where nature gives warning after warning, but man remains heedless, he has but himself to blame for the consequences. So it was in Chile, so it is in Japan, so it will be in California, or wherever else earthquake risk is carelessly disregarded."

Since, when a "quake" occurs, it is the earth that moves while the house tries to stand still, one way of averting damage would be to put a ball-bearing between the house and its foundation. It appears that this plan has actually been applied in the construction of a Japanese lighthouse, and Dr. Willis has recommended it to a firm which is considering the building of a warehouse on dangerous ground in Valparaiso. Probably it could be introduced successfully in some combination of bearings, springs or shock absorbers.

AN EDITOR'S IMPRESSIONS

Writing his impressions of San Francisco architecture from the view point of a traveler possessing average intelligence and appreciation of things beautiful, Philip Hewitt Myring of the London Daily News pays the following tribute to the Telephone and Russ buildings:

"The Telephone building, at any rate, seems to me a miracle of beauty. Overwhelming in its size, and yet with an aspect of lightness that one would have deemed impossible in so huge a pile, it is the outstanding edifice in San Francisco, and perhaps as fine an example of architecture on the titanic scale as one could find the world over.

"Second, and very nearly equal to it, I would place the Russ building. Here, an antique style—Perpendicular Gothic—has been most daringly adapted to modern construction, and there has resulted a beauty which anyone considering the blending of styles in theory would consider unattainable."

WATERFRONT DEVELOPMENT

Oakland and Eastbay harbors will benefit to the extent of $1,336,500, expended on development and maintenance, during the twelve months beginning July 1, according to press dispatches from Washington:

Major General Edgar Jadwin, chief of United States army engineers, recommends the following Eastbay appropriations:

Oakland harbor, $600,000.

Richmond harbor, $150,000.

San Pablo bay and Mare Island strait, $475,000.

Suisun bay channel, $111,500.

Other Pacific coast allotments include: San Francisco harbor and bay, $175,000; Humboldt harbor and bay, $25,000; Crescent City harbor, $280,000; Noyo river, $500; the San Joaquin river, $420,000.

W. H. LOWE TO BUILD

Plans have been completed by Architect Albert Farr for a $60,000 home in Presidio Terrace, San Francisco, for W. H. Lowe, official of the Paraffine Companies. The new structure will be typical French Renaissance in design, two stories in height and will contain 14 rooms. One of the outstanding features of the home will be the patio in the rear, which will be entered by passing through two massive iron-studded doors. French grilled windows will be used throughout, and an imported antique mantel will decorate the living room.

XMAS AND NEW YEARS CARDS

AT ABOUT this season, when eleven pages of the calendar have followed one another into the wastebasket, one who is addicted to the habit of sending greeting cards for Christmas and the New Year begins to think of what he is going to do about it this year. If he is handicapped for time, or inclined to be lazy, he can, of course, pick out a stock design

(FIG. 1)—PEN AND INK CHRISTMAS CARD BY ARTHUR DUDMAN, BERKELEY

at his stationers' and can have his name tastefully engraved or printed thereon. If, however, he cherishes a desire to make his Christmas card more personal, and if he is furthermore gifted, as all architects and draftsmen should be, with the ability to design and draw, he has the opportunity of creating his own card, into which he can introduce something of his own personality.

(FIG. 2)—DRAWING FOR A CHRISTMAS CARD BY J. B. BENEDICT

For the man who intends to make his own Christmas card there are a number of perfectly good graphic processes available. He may choose to make a simple line drawing or silhouette effect, (Fig. 1), which can be reproduced by the photo-engraver's zinc or copper line cut and run off by any print shop. By judicious selection of paper, which can be obtained today in enough varieties of texture and color to please any taste, this process can be made to furnish some very delightful results.

If the draftsman does not excel in pen-and-ink drawing he can make his design in pencil or wash, (Fig. 2) which can be reproduced by the half-tone process. For either of the preceding methods of reproduction, photographic prints made from the original drawing on suitably sensitized cards may be submitted.

COMPETITIONS FOR PRIX DE ROME

The annual competition for fellowship in Architecture, Painting and Sculpture has been announced.

In Architecture the Katherine Edwards Gordon fellowship is to be awarded, a fellowship recently endowed by the late George B. Gordon and Mrs. Gordon, of Pittsburgh, in memory of their daughter; in Painting the fellowship is provided by the Jacob H. Lazarus Fund of the Metropolitan Museum of Art, established by Mrs. Amelia B. Lazarus and Miss Emilie Lazarus; the fellowship in Sculpture is supported by the Parrish Art Museum Fund, given by Mr. Samuel L. Parrish.

The competitions are open to unmarried men, not over 30 years of age, who are citizens of the United States. Fortunately, the Academy has been able to increase the stipend to $1500 a year, and also to grant an allowance of $500 for travel, in addition to the present annual allowance of $50 to $100 for material and model hire. Residence and studio are provided free of charge at the Academy, and the total estimated value of each fellowship is about $2500.

The Grand Central Art Galleries of New York City will present free membership in the Galleries to the painter and sculpture who win the Rome prize and fulfill the obligations of the fellowship.

In architecture, graduates of accredited schools will be required to have had architectural office experience of six months, and men who are not graduates of such schools may enter the competition if they have had at least four years of architectural office experience and are highly recommended by a Fellow of the American Institute of Architects.

Entries for all competitions will be received until March first. Circulars of information and application blanks may be secured by addressing Roscoe Guernsey, Executive Secretary, American Academy in Rome, 101 Park Avenue, New York City.

OLDEST HOUSE PLAN

The oldest house plan in the world, an ancient architect's drawing discovered in Mesopotamia, has been placed on exhibition in Vienna. About four thousand years old, it shows the ground plan of a large house of seventeen rooms. Details are shown in accurate and closely drawn lines.

WITH *the* ARCHITECTS

SAN DIEGO CONTRACTORS LICENSED

An ordinance providing for the licensing and bonding of building contractors has been passed by the San Diego city council. The ordinance was sponsored by Oscar Knecht, chief inspector of buildings, and endorsed by various civic organizations. Bonds required of contractors under the ordinance are graduated from $1000 to $5000, according to the size of contracts undertaken. An owner may erect his own building without a license or bond. Work costing up to $200 may be done without a license or bond.

AWARDED THIRD PRIZE

Architect Frederick Kennedy Jr., of Pasadena, was awarded third prize in the architectural competition of the Common Brick Manufacturers' Association of America. Mr. Kennedy's design was for an 8-room Spanish style residence of brick construction with whitewashed exterior walls. First prize in the competition was won by James C. Mackenzie of New York City, and second prize by R. C. Hunter & Bro., New York City.

NEW MEMBER TO ARCHITECT'S FIRM

Architects Ashley and Evers, Underwood building, San Francisco, announce that Jesse Hayes, structural engineer, has become associated with the firm which hereafter will be known as Ashley, Evers and Hayes. The latter is well known to the engineering profession on the Coast and prior to his recent stay in the Orient, where he was engaged in several large engineering projects, he was in the office of H. J. Brunnier of San Francisco.

LOS ANGELES CIVIC CENTER PLAN

Southern California Chapter, American Institute of Architects, in a communication to the Los Angeles City Council, declares the civic center plan proposed by the county regional planning committee and city planning commission to be inadequate and suggests that it be referred to a "well qualified commission of architects." The communication has been referred to the committee on county affairs.

GRANTED CERTIFICATES

At a meeting of the State Board of Architecture, Northern District, the following were granted certificates to practice architecture in California: Albert J. Fabre, 110 Sutter Sreet, San Francisco; Asa W. Story, 162 Maple Avenue, Watsonville; Wm. B. Glynn, 1231 Market Street, San Francisco.

ARCHITECT TO MOVE

Architect William H. Weeks and his co-workers will move January first to larger offices on the 14th floor of the Hunter-Dulin building, San Francisco. The present offices of the firm at 369 Pine street have proved much too small for the steadily increasing business of Mr. Weeks and his associates.

OAKLAND DEPARTMENT STORE

The arrival in Oakland of Edward E. Ashley Jr. and Frank Gaertner, members of the internationally known firm of New York architects of Starrett & Van Vleck and the arrival also of Mr. Flesch of the Chicago firm of Taussig & Flesch, marks the first constructive steps toward the erection of a mammoth new department store at 20th and Broadway, Oakland, for the H. C. Capwell Company. Associated with these men in the design and superintendence of the building will be Messrs. Ashley and Evers of Oakland and San Francisco, while the P. J. Walker Company will be in charge of the construction work.

Present plans contemplate the erection of a four story building covering about 80,000 square feet of ground area and fronting on Broadway, 20th street and Telegraph avenue. The building itself will be many times larger than any department store now in Oakland, and will contain about 14 acres of floor area. This will give Oakland one of the greatest department stores in America.

BUTLER BUILDING CONTRACTS

A number of additional contracts have been let by Architects Bliss and Fairweather on the Butler building now under construction on Howard street between Beal and Fremont, San Francisco. The electric work has been let to the Central Electric Company, the heating now under construction on Howard street, between liam J. Foster and the sprinkkler system to the Automatic Sprinkler Company.

RESCUES ARCHITECT'S DAUGHTER

Tom Mix played the hero part in reality the day of the big football game at Stanford. The nine-year-old daughter of Architect Earl Bertz was thrown through the windshield in an automobile collision, while riding to the game with her father. Mix rescued the girl and directed his chauffeur to take her post haste to a hospital in San Mateo.

BACK FROM EUROPE

Architect Albert J. Fabre of Fabre & Hildebrand, architects and engineers, 110 Sutter street, San Francisco, recently returned from a six months' tour of architectural study and recreation through France, Italy, Germany, Switzerland, Belgium, England and the Eastern cities of the United States and Canada.

CONCRETE APARTMENTS

Architect Albert H. Larsen of San Francisco has completed plans for a six-story steel frame and re-inforced concrete apartment building for the Lincoln Investment Corporation, to be erected on the north side of Pine street east of Hyde, San Francisco, at an estimated cost of $110,000.

TWO RESIDENCES

Architect B. Cooper Corbett, 1720 Pacific avenue, San Francisco, has prepared plans for two residences, one of Spanish type to be built in Sea Cliff for Frank Werner and the other of English design to be built on Parnassas avenue, San Francisco, for Fred M. Davis.

NOTES OF LANDSCAPE ARCHITECTS

Howard Gilkey, landscape architect of Oakland, has been retained by St. Mary's College to take charge of the landscape development of their new campus at Moraga. This project is immense in its scope. It is planned to create in the hills of Contra Costa county a campus which will embody all the traditional romances and beauty of the church history in California, especially the days of the padres and missions. This is an opportunity that is rarely the fortune of architect and landscape architect to encounter. The architect for the buildings is John J. Donovan.

* * *

The new Music Building at Mills College, designed by Architect W. H. Ratcliff Jr., is now under construction and Howard Gilkey and Mr. Ratcliff are working on a new general plan for the campus. The latter covers about 100 acres and is heavily wooded. The survey of existing trees is now under way, and the plan will of course be carefully studied so that as many as possible of the finer specimens will be saved.

* * *

G. W. Smith is developing a rather large estate in Palo Alto. Howard Gilkey is the landscape architect.

* * *

Professor J. W. Gregg, landscape architect of the University of California, reports progress in the landscape development of the new campus of the University of California in Los Angeles. Approximately 50,000 trees in variety will be planted this winter in various situations, and as soon as the buildings which are under construction at the present time are completed, definite landscape development will be carried on around them.

* * *

Professor Gregg also reports the landscape development of the hillside home of Dean Charles Gilman Hyde in Berkeley. When completed the plan will reflect in many respects the hillside terraced gardens of Italy.

* * *

The new home of Mr. Richard McCarthy of Santa Barbara road, Berkeley, is progressing. Mr. Charles W. McCall is the architect.

* * *

The annual meeting of the Pacific Coast Chapter of the American Society of Landscape Architects will be held in Los Angeles about the middle of December at which time election of officers for the year 1928 will be held. A definite date for the meeting has as yet not been set in view of the fact that Mr. Arthur Shurtleff, landscape architect of Boston and president of the American Society of Landscape Architects, is expected here on the coast for a visit, and the meeting of the Pacific Coast Chapter will be arranged on a date when he may be present.

ELEVEN STORY BUILDING

William J. Bain, Liggett building, Seattle, is architect for a fireproof building eleven stories in height, and designed to meet the needs of doctors and dentists, to be constructed in Vancouver, B. C., at a cost of $1,500,000.

STATE NORMAL LIBRARY

Bebb & Gould of Seattle are architects for the Bellingham State Normal library building. F. Stanley Piper of Bellingham is associate.

BUILDING OWNERS TO MEET

Building owners and managers, representing the office buildings of the major Pacific Coast cities, will gather in Oakland for their fifth Pacific Southwest conference on February 20 and 21 next. Headquarters will be established at Hotel Oakland.

Preliminary arrangements are being made by an Oakland committee, assisted by a delegation from the San Francisco association. A. J. Slaght is chairman of the conference and E. J. Hogarty is in charge of entertainment. The balance of the committee consists of C. P. Murdock, P. S. Carlton, F. H. Woodward, Vincent Mead, Clarence Holmes, Ross Mack, C. D. Woodfill, G. C. Garringer and C. W. Smith.

MR. CHENEY HONORED

"The Master Planning Bill and Architectural Control," was the subject of an address by Charles Cheney, California city planner of Palos Verdos, who was one of the honored guests and speakers at the first annual banquet and second annual meeting of the East Bay Regional Planning Association at the Business and Professional Women's Club, Oakland, December 6th.

TACOMA APARTMENTS

An apartment building at Stadium Way, between North First and Second streets, Tacoma, is to be erected, according to the plans of Stanley T. Shaw, architect. The structure, which will cost $125,000, is to be six stories, with masonry and scratch brick and will contain forty-two two- and three-room apartments.

FRESNO HOSPITAL

Plans are being completed by Architects Alfred I. Coffey, and Gottschalk and Rist, associated, for a Class C hospital for St. Mary's Institution in Fresno. The project will cost in the neighborhood of $250,000 and construction work, to start next year, will be in the hands of Barrett & Hilp of San Francisco.

HOTEL ALTERATIONS

Architect Milton Latham, 454 Montgomery street, San Francisco, has completed plans for a $60,000 alteration to a six story Class C hotel on Geary street, San Francisco, owned by S. & G. Gump. The work will start in January.

NURSES' HOME

St. Luke's Hospital, Tacoma, is to have a new home for nurses at a cost of about $75,000, due to the generous bequest of the John A. Finch estate. Architects Whitehouse and Price are preparing the plans.

PERSONAL

E. GOEFFREY BANGS, architect, has been named member of the Oakland city planning commission by Mayor John L. Davie.

Architect BENJAMIN J. BLOSER announces the removal of his offices from 442 Citizens National Bank building to suite 214, Wilshire block, Sixth street and Western avenue, Los Angeles.

ARCHITECTS' LEAGUE

The Architects' League of Hollywood visited the new moving picture district back of Hollywood hills in the San Fernando Valley November 23 as the guests of Larry Wood.

TACOMA ARCHITECTS HONOR AWARDS

The following is a list of buildings and their architects which received Honor Awards at Tacoma, Washington:

DWELLINGS:
Detached dwellings of not more than five rooms.
Honor: Residence of Elizabeth T. Ellis, 3823 North Madison street. Sutton, Whitney & Dugan, architects.
Honor: Residence of Fred Corbit, 29th and Stevens. Silas Nelson, architect.
Honor: Residence of C. F. W. Lundberg, 4131 Madrona Way. Lundberg & Ekvall, architects.
Honorable mention: Residence of John E. McGuire, 4109 North 33rd street. John E. McGuire, architect.
Honorable mention: Residence of Paul F. Barber, 1920 North Junett street. Sutton, Whitney & Dugan, architects.
Detached dwellings of five to ten rooms:
Honor: Residence of J. J. Hewitt, 616 North D street. Delano & Aldrich.
Honor: George C. Weber, 4411 North 37th street. Sutton, Whitney & Dugan, architects.
Honorable mention: Charles B. Welch, 715 North Yakima avenue. A. J. Russell, architect.
Honorable mention: Christen Quevli, 611 North Yakima avenue. Sutton, Whitney & Dugan, architects.
Honorable mention: E. J. Murnen, 3015 North Proctor street. Lundberg & Ekvall, architects.
Honorable mention: Herbert Bachrach, 3010 North Proctor street. Lundberg & Ekvall, architects.
Honorable mention: Dr. W. T. Thomas, 3002 North Proctor street. Lundberg & Ekvall, architects.
Detached dwellings of more than ten rooms.
Honor: Weyerhaeuser residence, 4301 North Stevens street. Meade & Hamilton, architects.
Honorable mention: Dr. W. W. Mattson, 4605 North Verde street. Hill & Mock.

MULTIPLE DWELLINGS:
Hotels and apartments over two stories in height.
Honorable mention: Walker Apartments, 6th and St. Helens avenue. Roland E. Borhek, architect.
Honorable mention: Epps Apartments, North Third street and Yakima avenue. Sutton, Whitney & Dugan, architects.

SEMI-PUBLIC AND CULTURAL BUILDINGS:
Religious buildings.
Honor: First Presbyterian Church, Tacoma and Division avenues. Cram & Ferguson, architects; Sutton, Whitney & Dugan, associates.
Honorable mention: Sixth Avenue Baptist Church, 6th avenue and Oakes street. Heath, Gove & Bell, architects. (For exterior only.)
Honorable mention: Salvation Army Building, South 12th and Court avenue. Hill & Mock, architects.
Honorable mention: Parish House, Christ Church, North Third and K streets. A. J. Russell, architect.
Other semi-public and cultural buildings:
Honor: Buckley-King Funeral Church, South Tacoma avenue and First street. Hill & Mock, architects.
Honorable mention: Scottish Rite Cathedral, Division avenue and Park Heights. Sutton, Whitney & Dugan, architects.

SCHOOLS:
Academies, colleges, universities.
Honor: College of Puget Sound, North 15th and Warner streets. Sutton, Whitney & Dugan, architects.

COMMERCIAL BUILDINGS:
Mercantile buildings not over two stories in height.
Honor: National Bank of Tacoma. Sutton, Whitney & Dugan, architects.
Honor: Allen Garage, North First street at Division avenue. Sutton, Whitney & Dugan, architects.
Honorable mention: Stadium Dye Works, 750 St. Helens avenue. Schack, Young & Myers, architects.
Honorable mention: Pacific Garage, 624 Broadway. R. E. Borhek, architect.
Honorable mention: Chevrolet Garage, 714 Broadway. R. E. Borhek, architect.
Honorable mention: Mutual Motors, 9th and K street. Lundberg & Ekvall, architects.
Honorable mention: Garage at 805 Pacific avenue. Silas Nelson, architect.
Honorable mention: Shops for Lumbermen's Improvement Company, North Tacoma avenue at First street. Sutton, Whitney & Dugan, architects.
Mercantile buildings over two stories in height.
Honor: W. R. Rust Building, Pacific avenue and 11th street. Sutton, Whitney & Dugan, architects.
High schools.
Honor: Jason Lee Junior High, Sixth avenue and Sprague street. Roland E. Borhek, architect.
Honorable mention: Morton McCarver Junior High, South 19th and J streets. Hill & Mock, architects.
Honorable mention: Lincoln High School, South Columbia and G streets. Heath, Gove & Bell, architects.
Private schools.
Honor: Annie Wright Seminary, North Seventh and Tacoma avenue. Sutton, Whitney & Dugan, architects.
Monuments, sculpture.
Honorable mention: Norton Memorial, Tacoma and St. Helens avenues. A. J. Russell and Frederick Heath, architects.

NOT CLASSIFIED—ALTERATIONS:
Honor: Tacoma Theater (now Broadway), 9th street and Broadway. Heath, Gove & Bell, architects.
Honorable mention: Bostwick Shops, Ninth street, St. Helens avenue and Broadway. Sutton, Whitney & Dugan, architects.

THE CHICAGO CONVENTION HALL

Numerous inquiries have been received from readers regarding the proposed architectural competition for the Chicago convention hall. A letter from a prominent architect in that city imparts the information that there probably will be no competition, that the building will be designed by the recently appointed County Architect, who is not a member of the Institute or Illinois Society of Architects; that associated with him will be seven architects recommended by the Chapter and Society, although at this writing no official confirmation of these men has been publicly announced.

ENGINEERS MEET

"Transportation of the Future" was the subject of the meeting of Los Angeles Chapter, American Association of Engineers, Dec. 1, at the Windsor tea room. Ethelbert Favary was the principal speaker, describing the "Air Derby" held recently at Spokane, Wash. A class in public speaking conducted by J. Hunter Clark will be started Tuesday evening, Jan. 3, and will meet once every week for six weeks.

MONSON BROS. MOVE

Monson Bros. have moved to their new building at 475 Sixth street, where they have larger offices and better equipment facilities. Monson Bros. are pioneer contractors in San Francisco and some of the largest and best designed buildings in Northern California have been built by them. The management of the firm is in the hands of O. Monson and H. E. Rahlmann.

DUNHAM PATENT

On October 4, 1927, method patent No. 1644114 was issued to C. A. Dunham and assigned to the C. A. Dunham Company. This covers the Dunham differential vacuum heating system, advertisements on which appear in our columns.

The MONTH'S MAGAZINES
Edited by Irving K. Morrow - Architect

THE AMERICAN ARCHITECT
October 20, 1927

TEXT

Saumur and Angers; Notes and Sketches *by Samuel Chamberlain.*

Mechanical Refrigeration for Domestic Use.

The Effects of Foreign Competition on the Building Industry. *By E. J. Mehren.*

PLATES

Building of Massachusetts Mutual Life Insurance Co., Springfield, Mass. *Kirkham & Parlett, Architects.* (3 plates, plan, and detail.)

House, Mr. George A. Varney, Coconut Grove, Fla. *George A. Varney, Architect.* (5 photographs and plans.)

Baker Building, Minneapolis, Minn. *Larson &McLaren, Architects.* (3 photographs and plans.)

House, Mr. G. S. McClintock, Bear Lake, Pa. *Lewis E. Welsh, Architect.* (Photographs, plans and details.)

Monteith Branch Public Library, Detroit, Mich. *Smith, Hinchman & Grylls, Architects and Engineers.* (4 photographs and plans.)

St. Colman's Church, Ardmore, Pa. *Frank R. Watson, Edkins & Thompson, Architects.* (4 photographs and plans.)

Gymnasium, University of Illinois, Urbana, Ill. *Charles A. Platt and James M. White, Associated Architects.* (1 photograph and plans.)

Tile—Four plates in supplement.

THE AMERICAN ARCHITECT
November 5, 1927

TEXT

The Design of Airports. *By George B. Ford.*

English Stained Glass. *A Review by Clement Heaton.*

Effect of Workmanship on Strength of Brick Masonry. *By J. W. McBurney.*

A House Built Like a Skyscraper. *Robert Tappan, Architect.*

The Architectural Five-Foot Shelf.

PLATES

Maccabees Building, Detroit, Mich. *Albert Kahn, Inc., Architects and Engineers.* (6 photographs and plans.)

Niels Esperson Building, Houston, Texas. *John Eberson, Architect.* (4 photographs, plans and detail.)

Old Town National Bank, Baltimore, Md. *Frederick A. Fletcher, Architect.* (1 plate and plans.)

George Morris Philips Memorial Building, State Teachers College, West Chester, Pa. *Walter F. Price and William McKee Walton, Architects.* (Photographs, plans and detail.)

Towers—Four plates in supplement.

THE ARCHITECT
November, 1927

TEXT

Early American Architects, II. Benjamin Henry Latrobe. *By Rexford Newcomb.*

Some Tendencies in the Profession. *By William L. Steele.*

PLATES

County Court House, Milwaukee. Accepted Competitive Design. *Albert R. Ross, Architect.* (5 plates.)

BUILDINGS AT UNIVERSITY OF ILLINOIS, URBANA, ILL.:

Library and Agricultural Building. *Charles A. Platt, Architect.* (4 plates.)

Commerce Building, Hospital, Armory and Gymnasium. *James M. White, Charles A. Platt, Associate Architects.* (4 plates.)

Graybar Building, New York. *Sloan & Robertson, Architects.* (4 plates.)

Second Church of Christ, Scientist, Germantown, Pa. *Charles Z. Klauder, Architect.* (5 plates.)

The Elizabeth Somer Chapel, Washington, D. C. *Wesley Sherwood Bessell, Architect.* (3 plates.)

Masonic Temple, Ansonia, Conn. *Douglas Orr, Architect.* (3 plates and plans.)

Town Hall, Weston, Mass. *Bigelow & Wadsworth, Architects.* (1 plate.)

Community House, Edgewater Presbyterian Church, Chicago, Ill. *Hamilton, Fellows & Wilkinson, Architects.* (3 plates and plans.)

THE ARCHITECTURAL FORUM
November, 1927

TEXT

Natchez, Mississippi. *By William P. Spratling.* (With sketches by the author.)

The Use of Color in Commercial Architecture. *By Samuel Howe.*

PLATES

House, Mr. Newton P. Bevin, Jamaica, N. Y. *Newton P. Bevin, Architect.* (2 plates, plan and photographs.)

House at Purchase, N. Y. *Leigh French, Jr., Architect.* (6 plates, plan and photographs.)

Wilshire Boulevard Christian Church, Los Angeles, Calif. *Robert H. Orr, Architect.* (4 plates and plans.)

Boston Consolidated Gas Company Building, Boston, Mass. *Parker, Thomas & Rice, Architects.* (4 plates, plans and details.)

Fine Arts Building, Los Angeles, Calif. *Walker & Eisen, Architects.* (3 plates, plans and details.)

Boodle's Club, London. (Photograph and measured drawings.)

THE ARCHITECTURAL RECORD
November, 1927

TEXT

The Country House; An Analysis of the Architect's Method of Approach. *By Lawrence Kocher.*

There are admirable remarks on the working up of a country house scheme by Mr. William A. Delano (quoted at the bottom of page 341, f.f.).

PLATES

Photographs and plans of 39 American Country Houses, of which the outstanding, for one reason or another, are the following:

Mr. Giuseppe Cosulich, Fieldston, N. Y. *Frank J. Forster, Architect.*

Mr. John L. Wilkie, New Windsor, N. Y. *Mott B. Schmidt, Architect.*

Mr. Kenneth C. Goodall, Portland, Ore. *Harold W. Doty, Architect.*

Mr. E. H. McKiever, Fieldston, N. Y. *R. C. Hunter & Bro., Architects.*

Mr. Otto E. Osthoff, Pasadena, Calif. *George Washington Smith, Architect.*

Mr. Fred C. Thompson, Beverly Hills, Calif. *Wallace Neff, Architect.*

Mr. Duncan McDuffie, Berkeley, Calif. *Willis Polk & Co., Architects.*

Mr. Jack Huber, Holmby Hills, Calif. *Gordon B. Kaufmann, Architect.*

Mr. Chester W. Cuthell, South Norwalk, Conn. *James C. Mackenzie, Jr., Architect.*

Note—The entrance detail of this house is mis-labeled and misplaced on page 380.

ARCHITECTURE
October, 1927
TEXT

The Art of Collaboration. *By Royal Cortissoz.*

Pencil Sketching. *By Robert Leroy.* With drawing by Ernest D. Roth.

The Architect Buys. *By Samuel Lapham, Jr.*

PLATES

Pacific Gas and Electric Building, San Francisco. *Bakewell & Brown, Architects.* (5 photographs.)

Color Schemes of Adam Ceilings, Plate II. (In color.)

Stable Group, M. Windsor White, Chagrin Falls, Ohio. *Bohnard & Parsson, Architects.* (7 photographs and plan.)

Portfolio of Gable Ends. (42 photographs.)

ARCHITECTURE
November, 1927
TEXT

New York vs. Chicago in Architecture. *By Lewis Mumford.*

Light for Ornament. *By A. L. Powell.*

The Lure of Provins. *By Gerald K. Geerlings.* (With pencil sketches by the Author.)

The Installation of a Carillon. *By Charles L. Hillman.*

Collaboration Between Architect and Contractor. *By W. A. Starrett.*

Office Procedure of Ludlow & Peabody. *By Robert W. Blodget.*

PLATES

World War Memorial, Frankford, Pa. *Paul P. Cret, Architect. John Donnelly, Sculptor.* (3 photographs and plan.)

Lake-State Bank Building, Chicago, Ill. *C. W. & Geo. L. Rapp, Architects.* (2 plates.)

Temple Emanu-El, San Francisco. *Bakewell & Brown and Sylvain Schnaittacher, Architects.* (8 photographs, plan and detail.)

Color Schemes for Adam Ceilings. Plate III. (In color.)

Fire Headquarters, Philadelphia, Pa. *John Mollitor, Architect.* (1 plate and plans.)

Portfolio of Colonial Top-Railings of Wood. (42 photographs.)

JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS
November, 1927

The Enlarged Bank of England. *By R. Clipston Sturgis.*

Early American Doorways.

Music in Architecture.

As cultural uplift for the Art League of the Ladies' Guild this might be suffered to pass in charitable silence. As pabulum for grown architects, purveyed by the official organ of their most dignified organization, it is appalling. (There is a psychological phenomenon on which I cannot refrain from speculating: why is a miscellaneous spattering of confused and misapplied musical terms—melody, chord, tone, harmony, rhythm, resound, vibrate, etc.—so generally considered poetic?)

Deerhurst; A Saxon Heritage. *By Stewart F. Campbell.*

An Artist's Perspective of Architecture. (With drawings by Theodore A. T. de Postels.)

International Exhibition at Melbourne.

Schooling the Draftsman—II. *By John Taylor Boyd, Jr.*

Old New England Frescoes. *By Edward B. Allen.*

France Deplores Vanishing Monuments. *By G. F. Sebille.*

* * * * * *

Could the Journal not avoid this Saturday Evening Post make-up of a tag end of every article "continued on page so-and-so"?

LANDSCAPE ARCHITECTURE
October, 1927

Southern Textile Village Planning. *By E. S. Draper.*

Some Connecticut Notions About State Parks. *By Albert M. Turner.*

Should be read by everyone connected with or interested in public park systems. An architect might wish to argue the point of excluding permanent buildings on policy.

Water Features; Notes on Experience in California Gardens. *By Paul G. Thiene.*

Planting Design; Its Study and Teaching. *By R. S. Sturtevant.*

Notes With Reference to Contracts and Specifications. *By Albert D. Taylor.*

PACIFIC COAST ARCHITECT
November, 1927
TEXT

The W. P. Frick School—A Study in Creative Duplication. *By Zoe A. Battu.*

"Creative Duplication" is a touch decidedly too good for an ordinary architectural magazine. We look for Zoe A. Battu in the near future as adornment to an advertising bureau, or even Publicity Counsel.

The Place of the Hotel in the Modern City. *By Guy Wilfred Hayler.*

Fire Menaces Can Be Eliminated. *By Mark C. Cohn.*

PLATES

W. P. Frick School, Oakland, Calif. *Wythe, Blaine & Olsen, Architects.* (12 photographs, plan and details.)

Ahwahnee Hotel, Yosemite Valley, Calif. *Gilbert Stanley Underwood, Architect.* (5 photographs and sketch.)

Royal Hawaiian Hotel, Honolulu, T. H. *Warren & Wetmore, Architects.* (10 photographs.)

New Buildings for the University of California at Los Angeles and Berkeley. *George W. Kelham,* and *Allison & Allison, Architects.* (3 sketches.)

PENCIL POINTS
November, 1927

The Architectural Aquatints of Donald Douglas. *By Payne Adams.*

A Building on the Boards. *Smith & Walker, Architects.*

The Sculptor Looks at Collaboration. *By Alvin Meyer.*

Competition for the Milwaukee County Court House—Report of the Jury. *By Alfred C. Clas, Professional Adviser.* (With winning design.)

Drawings in Various Media, with 2 in Color.

THE WESTERN ARCHITECT
October, 1927
TEXT

The Early Architecture of the State of Ohio. *By Thomas E. O'Donnell.*

Color in Architecture—X. Egyptian Polychromy. *By Rexford Newcomb.*

PLATES

House, Mr. Frank Schopflin, Kansas City, Mo. *Clarence E. Shepard, Architect.* (4 photographs and plans.)

House, Mr. H. F. Bagby, Kansas City, Mo. *Clarence E. Shepard, Architect.* (2 photographs and plan.)

House, Mr. Ben Harwood, Los Angeles, Calif. *Everett H. Merrill, Architect.* (5 photographs and plans.)

House, Mr. Frank Ryan, Los Angeles, Calif. *Witmer & Watson, Architects.* (4 plates and plans.)

SOCIETY and CLUB MEETINGS

ARCHITECTS OF ALAMEDA COUNTY

The present officers, elected at the last meeting of the Society of Architects of Alameda County are:

President, Chester Miller.

Vice-President, Ralph Wastell.

Secretary and Treasurer, Charles Roeth.

Directors, Will Corlett, John J. Donovan, Roger Blaine and E. G. Bangs.

At the last bi-monthly luncheon held on November 21st, at the Elks Club in Oakland, Andrew P. Hill, architectural advisor of the State Board of Education, gave a most interesting and instructive talk to a large gathering of members of the society and their guests.

Mr. Hill came as the friend of J. J. Donovan, who, in introducing him, said that not only the architects but also the school boards throughout the state were indeed fortunate in the selection of Mr. Hill as the first appointee to the position created by the last state legislature. His intimate knowledge of the administrative, educational, and architectural problems in connection with the planning of schools makes him especially valuable in this position, which has so many opportunities for influencing the schools throughout the state.

Mr. Hill told how the board has been gathering data relative to school planning, including among many things, the grouping of rooms to secure their most efficient use and the arrangement of restrooms and playgrounds to minimize the amount of supervision required from the teachers. He emphasized the importance of a good plan to lessen the admistrative duties of a principal, thus giving him more time for educational supervision. The board has accumulated data and recommendations which are available to architects to assist them in giving the most efficient solutions for the different school problems as they arise.

Mr. Hill received a most enthusiastic vote of appreciation for his work from the members and was extended an invitation to tell them at a later date of the further work and findings of this very important board of which he is the leading spirit. —G. C. M.

MEETING OF SEATTLE CHAPTER

The regular monthly meeting of the Washington State Chapter was held at the College Club, Seattle, Friday, November 11, and in accordance with the vote at the October meeting, was devoted to the subject of City Planning, the date of the meeting being arranged to take advantage of the visit in Seattle of Earl O. Mills, of Harland, Bartholomew & Associates, city planning engineers, who are engaged in city planning work in various cities of the Pacific Coast. Besides Mr. Mills, there were present as guests of the Chapter, E. S. Goodwin, president, and Mr. William Pitt Trimble, vice-president, of the City Planning Commission; E. A. Hussey of the Commission and Thomas C. Vint, landscape engineer, U. S. National Park Service.

At the conclusion of the dinner President Thomas announced a postponement of usual business in order that a full opportunity could be afforded to hear from Mr. Mills, who was to leave that evening for Vancouver. Mr. Miils spoke on the general subject of city planning, and mentioned the difficulties in Seattle as not unlike those that had been met with elsewhere. He described the several divisions that make up the city plan; streets, transportation within the city, of which electric street railways would continue to provide for mass transportation, with possibly bus lines for feeders and crosstown traffic, transportation from without, involving the location of railroad stations and freight yards; parks; civic art, including the grouping of public buildings, and, lastly, zoning, which had now been accepted and adopted in many cities as a legitimate provision for the general welfare and had been firmly established by important supreme court decision.

NORTHERN CALIFORNIA CHAPTER, A. I. A.

The regular meeting of the Northern California Chapter, A. I. A., was held at the Mark Hopkins Hotel on November 29 and was attended by 66 members and guests.

E. L. Norberg reported progress for the Special Committee on Drafting Room Practice and Standards, requesting that members of the Chapter give the committee the benefit of their advice in standardization of symbols and in drafting room methods.

The meeting was held in the Room of the Dons, where the Exhibition Committee had prepared a delightful showing of architectural drawings, water colors and pen and ink sketches. The architectural drawings were of particular interest, being the finished sketches and scale drawings of the new Grace Cathedral, as prepared by the office of Lewis P. Hobart. The water color paintings by Harris Osborn showed great talent and a fine appreciation of colors. The cleverly executed pen and ink sketches of Roger Blaine, made during his trip abroad, were the subject of much favorable comment.

Mr. Hobart showed seven reels of France and Spain taken on his recent trip. This specially conducted architectural tour was greatly appreciated, and a wealth of Gothic detail was supplemented with charming bits of landscape and gardens, culminating in some really superb pictures of the Granada and the Generalife, which showed that lovely gem at its best with fountains playing in the never-to-be-forgotten garden.

ENGINEERS' CLUB, SAN FRANCISCO

G. R. Kingsland has been elected president of the Engineers' Club of San Francisco for the ensuing year. E. N. Britton is secretary. The club reports more than 700 members enrolled and 13 branches of national technical societies using the club quarters for their regular meeting place.

TOO MUCH CHRISTMAS

There will be no meeting of the Northern California Chapter, American Institute of Architects, in December, due to the close proximity to Christmas. The next regular meeting will be held on January 31, 1928. The subject will be "City Inspection," and interested persons outside of the Chapter will be invited to attend.

Communications

WILLIS POLK THE ARCHITECT

In the Bass-Hueter page advertisement for October, credit for designing the D. O. Mills bank (now the California bank) in Sacramento, was given to Starks & Flanders, architects of that city. The original building was designed by Willis Polk, while the additions were planned by Starks & Flanders. The question has often been raised in architectural publications: "Do architects read the advertisements." The following letter would seem to indicate that they do:

Editor The Architect and Engineer,
San Francisco, California.

In last month's issue an advertisement appears using a picture of the D. O. Mills Bank of Sacramento, with the words under—"Starks & Flanders, architects."

I have thought that my former employer, Mr. Willis Polk, was the architect of that building since The Architect and Engineer for April 1911, on pages 54 and 55 gave pictures of this bank in connection with an article descriptive of the work of Mr. Polk. In 1919, while practicing in Sacramento, I passed this building several times a day and lifted my hat in reverence to the genius of Mr. Polk.

At that time, so fas as I know, neither of the persons by whom the building is now claimed, had yet made his debut in Sacramento. In fact, in your issue for October, 1925, the statement is made that Mr. Starks came to California in 1921 and became associated with Mr. Flanders January, 1925.

An explanation of this advertisement would seem necessary.

Very truly yours,
Berkeley, Nov. 2, 1927. FRANCIS W. REID.

COMPETITOR HAS GRIEVANCE

Evidently the recent competition conducted by the West Coast Woods organization with headquarters in Seattle, failed to leave all of the contestants in a tranquil frame of mind. A copy of the following protest, addressed to the Architectural Adviser, J. Lester Holmes, has been received by the editor, from Louis Cowles, a San Diego architect, who thinks his design should have drawn a prize, but instead the jury presented him with "an everlasting grievance":

Dear Sir:

I feel that I must say frankly I am sorely disappointed in the outcome of the competition, and clearly have ample reason for being so; though of course it is no fault of yours.

On careful examination of premiated and mentioned designs, in American Architect, I find nothing original or out of the ordinary or especially noteworthy, except sand blasting, recently well made known, the use of stain over paint (new to me), a network effect by cutting shingle butts, and the use of blowtorch scorching, a new application, rather "questionable" if not dangerous, likely to nullify insurance, and usable with care; in all, four improved ideas for the twelve designs.

On the other hand my design has sixty or more improved, novel and original ideas such as called for, of much practical and artistic value.

I cannot find any good reason why the jury could overlook or ignore it. Every requirement was met with scrupulous care.

I found 200 words a very severe limitation within which to indicate ideas not so well shown on drawings.

I will only mention here a few of special value, new or little used.

(To identify my design, will say, it has a gambrel gable with inset bay, a graceful domed porch and the garage porch but a few steps away.)

Now the natural colors of many woods, without any coating, are so exquisitely beautiful they may often be left so, at least for a time; but to add variety and protect parts needing it, selected places may be stained varnished or lacquered, by spray, sponge or brush, to produce an unlimited variety of delightful effects; better than all over treatment the same.

This I have never seen or heard of.

In sand blasting I proposed to drive clear through the softer fibers of Douglas fir (first thin layer) leaving the harder fibers to form their natural design over a second layer of contrasting wood. This may be applied later, of any color or finish preferred.

I have not seen this done but believe it can be with very fine results.

I have shown bent wood in 14 kinds of places. Some might think this "questionable," and it has its limits of course. But I have designed and have built so many similar things, I know they can be done and are beautiful.

True there is a continued disposition to straighten, but they should be especially secured to hold them in place. I have used iron plates for this.

Two kinds of safety scaffold cornices are shown. I have designed and built several kinds. They are part of the useful structure, a feature of design, go up at an early stage and remain for all jobs following, saving repeated scaffolding and are safe and economical; besides having special beauties.

Poles, tops and limbs are used in 12 kinds of places, better than to burn them up where they fall, as usual.

Several ways to use slabs are shown (as a measure of conservation) some rustic, and picturesque, some refined, all artistic.

I would saw waney beveled siding from some slabs, first full inch, then "resaw" to bevel, random widths, showing sap, and varnish to bring out the colors.

I was impressed with the importance of using up slabs where we can, by seeing near a large lumber mill, great hills of slab stove wood grown gray with old age waiting a market.

Lumber and mill men know this but architects and juries do not care.

It is very clear that such a design ought to have drawn a prize, but instead I am left with an everlasting grievance. Sincerely and respectfully yours,

San Diego, Cal. LOUIS COWLES, Architect.

LOCAL PLANNING SERVICE NEEDED

Editor The Architect and Engineer,
San Francisco, Cal.

All that your editorial, "Blue Prints for $7.50" had to say is undoubtedly true. Cut rate work is bad for the architectural profession and equally bad for the builder and property owner. But when economic pressure comes in contact with the ethics of a profession, it would seem the course of wisdom to take some means to remove the former. I have often run down the list of building permits issued each day in Alameda county and of the projects listed under $5,000 few are designed by architects. The small home builder needs an architect's service but his requirements are different than those of the owner. The five or six expansive sheets of blue prints that the architect turns out along with voluminous specifications are entirely superfluous to the speculative builder. If the cut rate work exemplified in your editorial is to be stopped a planning service fitted to the builder's needs should be adopted.

My own efforts at getting work done short of complete plans and specifications have met with a decided rebuff. One architect told me that the design of small homes was usually done at a loss to his office. Another told me he would alter and retrace a floor plan only as a personal favor. The speculative builder is keenly aware that the appearance of his house is a vital factor in its sales value and should be a live prospect for the architect if the architect wants his business. Does he want it? EAST BAY BUILDER.

Carey Built-up Roofing Specified on $5,000,000 California Transit Terminals

WAREHOUSES FOR ALASKA PACKERS ASSOCIATION, ALAMEDA, CALIFORNIA

THIS airplane view of the Alameda estuary shows the first unit of an ambitious waterfront enterprise financed by the Alaska Packers Association. Great piers, warehouses, transit sheds, etc., are included in the program which calls for an ultimate expenditure of several million dollars. The two great sheds seen in the foreground were designed by Philip Bush, structural engineer for the Alaska Packers Association and the California Packing Corporation, while the substructure and marine work were designed by White and Squires.

Each shed is approximately 700 feet long by 160 feet wide and rests on concrete piles, and solid ground foundations. They have a wood frame of heavy mill type construction with corrugated iron siding. The roofs are Carey built-up asbestos, sold and supplied by Jones Bros. Asbestos Supply Company of San Francisco and distributors for the Philip Carey Company of Cincinnati, Ohio. More than 225,000 square feet of roofing material was used.

Other large contracts taken for Carey roofing in recent months are the Schmidt Lithograph plant, San Francisco; the J. W. Hume Packing plant, Benicia, and eighteen buildings at the Presidio of San Francisco.

NOTED ENGINEER PASSES

The recent death of Gustave A. M. Liljencrantz at Stockholm, Sweden, brought to a close the life of an engineer whose work has left a lasting imprint on river and harbor improvements throughout the Great Lakes region and the Middlewest. For forty-seven years, Mr. Liljencrantz, son of a Swedish baron, was civilian assistant engineer for the Chicago district, retiring in 1916 to return to his native country, where he resumed his Baronetcy. He was 85 years old at the time of his death.

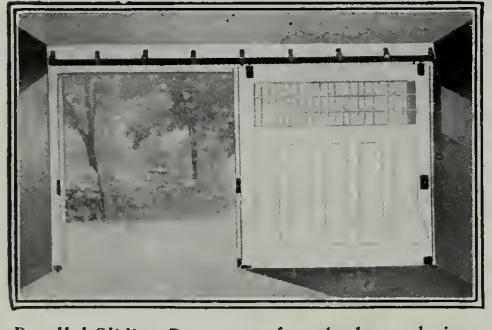
In the conference room of the Western Society of Engineers at Chicago hangs the original sketch of the seal of the organization, drawn by Mr. Liljencrantz at the time of the society's incorporation in 1880. Besides being a charter life member of the western society, he was honorary member of the Chicago Engineers' Club and affiliated with the Swedish Engineers' society and Scandinavian Engineers' society.

RECENT TRADE LITERATURE

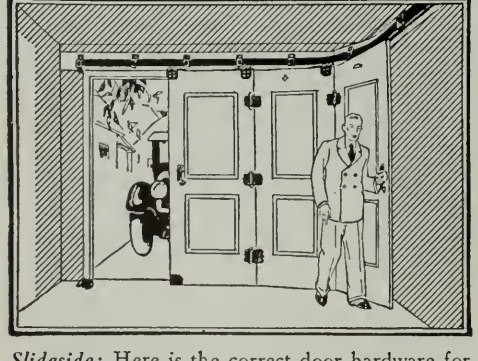
COLORMIX STAINPROOF—This material is described in a leaflet just published by the Master Builders Company of Cleveland, Ohio. The product is said to prevent marring and staining of new concrete floors. It is a jelly-like material and is applied to the surface in a paint-like film thirty-six hours after the final troweling. Stainproof dries to form a non-porous, viscous film through which paint, plaster, tobacco juice and similar staining agents cannot penetrade. This film is so tough that the heavy traffic new floors have to bear cannot grind through it to leave its marks in the cement beneath. Over this stainproof film, painters, plasterers and tradesmen complete their work. Equipment is moved and set up. Workmen pass back and forth until the building is completed. Then, when the building is ready for occupancy, the stainproof film is removed, disclosing the new floor in its full unmarred beauty.

THE WEBSTER DRIP TRAP—A bulletin by Warren Webster & Company announces a new product for use in Webster systems of steam heating. It is a compact, easily installed heavy duty trap with float valve mechanism for handling water of condensation and thermostatic valve for handling air. As it weighs only eighteen pounds it can be installed directly in the pipe line without added support.

Hardware *for every modern* DooR-Way



Parallel Sliding Doors are often the best solution to a garage door problem. For the multiple-car garage they are particularly practical, sliding parallel on two or three tracks, all the hardware being protected, no weather strip being necessary. This is a popular type of R-W garage door hardware, ideally suited to various doorway conditions.



Slidaside: Here is the correct door hardware for garages not deep enough to fold the doors inside. *Slidaside* equipped doors slide around the corner, flat against the wall. They can be used for two-car garages by sliding to both walls, regardless of the distance from jamb to wall.

Both *Slidaside* and *Slidetite* equipment provide for an entrance door — no separate entrance is

A BUILDING is no more useful than its doors. Whatever your doorway problem may be, it can be solved with R-W hardware, exclusive designs perfected by R-W door engineers.

Take garage doors, for example — three typical conditions are pictured on this page. The large illustration shows a large garage whose doors are hung with R-W ***Slidetite*** hardware. Not only are the doors protected from all effects of weather, by opening *inside*, but there is no center post — the passageway is wide, clear and unobstructed.

Garage doors that open *out* invite trouble. Not so with ***Slidetite*** equipped doors which slide and fold snugly back against the wall. Wind cannot blow them shut; ice and snow cannot impede their smooth, quick, easy performance. None of the hardware is exposed to the ravages of damp weather. ***Slidetite*** adjustments take care of all door swelling and shrinkage. Doorways with 2 to 10 doors and up to 30' wide can be equipped with ***Slidetite*** hardware.

Every single doorway need can be met with R-W hardware, the largest and most complete line manufactured. Have no hesitation in telling us your problems, and we will gladly make recommendations to help you.

Richards-Wilcox Mfg. Co.

"A Hanger for any Door that Slides."

AURORA, ILLINOIS, U.S.A.

New York · · · Chicago

Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleans Des Moines Minneapolis Kansas City Los Angeles San Francisco Omaha Seattle Detroit

Montreal · RICHARDS-WILCOX CANADIAN CO., LTD., LONDON, ONT · Winnipeg

Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

The wage scale is that in effect January 1, 1927, for a period of one year. Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
Common, $32.00 per 1000 laid.
Face, $70.00 per 1000 laid.
Brick Steps, using pressed brick, $1.10 lin. ft.
Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
Brick Veneer on frame buildings, 70c sq. ft.
Enamel, $115.00 per 1000, f.o.b. cars.
Common, f.o.b. cars, $11.50, plus cartage.
Face, f.o.b. cars, $48.00 per 1000, carload lots.

HOLLOW TILE PIREPROOFING (f. o. b. cars in carload lots).

12x12x3 in.	$ 90.00 per M
12x12x4 in.	100.00 per M
12x12x6 in.	145.00 per M
12x12x8 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f. o. b. cars in carload lots).

8x11½x5½	$100.00
6x11½x5½	74.00

Hod carriers, $7.00 per day.
Bricklayers, $11.00 per day.

Composition Floors — 18c to 50c per sq. ft. In large quantities, 18c per sq. ft. laid.
Rubber Tile—70c per sq. ft.

Terazzo Floors—60c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.30 per ton
No. 4 rock, at bunkers	1.30 per ton
Niles pea gravel, at bnkrs.	2.70 per ton
Washed gravel, at bnkrs.	1.40 per ton
Niles top gravel, at bnkrs.	1.50 per ton
City gravel, at bunkers	1.30 per ton
River sand, at bunkers	1.15 per ton
Delivered bank sand	1.00 cu. yd.

SAND
Del Monte, $1.75 to $3.00 per ton.
Fan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
Belgian cement, $2.30 per bbl.
Cement, $2.51 per bbl. in paper sks.
Cement (f.o.b. Job, S.F.), $2.71 per bbl.
Cement (f.o.b. Job, Oak.), $2.71 per bbl.
Rebate of 10 cents bbl. Cash in 15 days.
Atlas "White" .....$ 8.75 per bbl.
Forms, Labors average 25.00 per M
Average cost of concrete in place, exclusive of forms, 30c per cu. ft.
4-inch concrete basement floor.....13c to 14c per sq. ft.
4½-inch concrete basement floor.....14c to 15c per sq. ft.
2-inch rat-proofing....6½c per sq. ft.
Concrete Steps.....$1.26 per lin. ft.
Wage—
Concrete workers .....$5.50 per day
Cement finishers ..... 9.00 per day
Laborers ..... 5.00 per day

Dampproofing—
Two-coat work, 20c per yard.
Membrane waterproofing—4 layers of P.B. saturated felt, $4.50 per square.
Hot coating work, $2.00 per square.
Wage—Roofers, $8.00 per day.

Electric Wiring—$3.00 to $9.00 per outlet for conduit work (including switches).
Knob and tube average $2.25 to $5.00 per outlet, including switches.
Wage—Electricians, $9.00 per day; fixture hangers, $8.00 per day.

Elevators—
Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
Sand, 60 cents; clay or shale, $1.25 per yard.
Teams, $10.00 per day.
Trucks, $21 to $27.50 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
Ten-foot balcony, with stairs, $100.00 per balcony.

Glass (consult with manufacturers)—
Double strength window glass, 15c per square foot.
Quartz Lite, 50c per square foot.
Plate, 80c per square foot.
Art, $1.00 up per square foot.
Wire (for skylights), 25c per square foot.
Obscure glass, 25c per square foot.
Note—Add extra for setting.
Wage—Glaziers, $8.00 per day.

Heating—
Average, $1.80 per sq. ft. of radiation, according to conditions.
Wage—Steamfitters, $9.50 per day.

Iron — Cost of ornamental iron, cast iron, etc., depends on designs.
Wage — Iron workers, bridge and structural, $11.00 per day.
Architectural iron workers, $9.00 per day.

Lumber (prices delivered to bldg. site)
Common, $25.00 per M (average).
Common O.P. select, average, $32.00 per M.

Flooring—

1 x 6 No. 3—Form lumber	$19.00 per M
1 x 4 No. 1 flooring	52.00 per M
1 x 4 No. 2 flooring	51.50 per M
1 x 4 No. 3 flooring	35.00 per M
1 x 6 No. 2 and better flooring	45.00 per M
1¼ x 4 and 6 No. 2 flooring	55.00 per M

Slash grain—

1 x 4 No. 2 flooring	38.00 per M
1 x 4 No. 3 flooring	36.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90c per bdle.

Hardwood Flooring (delivered to building)—

	13/16x3¼" T & G Maple		$135.00 M ft.
	1 1/16x2¼" T & G Maple		145.50 M ft.
	⅞x3½ sq. edge Maple		132.50 M ft.
		13/16x2¼" T&G	⅝x2" T&G	⅝x2" Sq. Ed
Clr.	Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel.	Qtd. Oak	150.00 M	122.00 M	131 M
Clr.	Pla. Oak	155.00 M	110.00 M	113 M
Sel.	Pla. Oak	132.00 M	79.00 M	97 M
	Clear Maple	147.00 M	101.00 M	
	Laying & Finishing	16c ft.	15c ft.	13c ft.

Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$4.20
2 ply per 1000 ft. roll	6.30
3 ply per 1000 ft. roll	9.60
Sash cord com. No. 7	$ 1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	60.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $110 per 1000.
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel), $7.50 and up, each.
Doors, including trim (five panel), $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $6 each.

Dining room cases, $7.50 per lineal foot.
Labor — Rough carpentry, warehouse heavy framing (average), $12 per M.
For smaller work, average, $25 to $32 per 1000.
Wage—Carpenters, $9.00 per day.
Laborers—$5.50 per day.

Marble—(Not set), add 40c to 60c per ft. for settling.

Alaska	$1.15 sq. ft.
Columbia	1.15 sq. ft.
Pink Lepanto	1.40 sq. ft.
Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.

Floor Tile — Set on any of above except Verde Antique

	$1.10 sq. ft.
Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.
Hauteville	2.25 sq. ft.
French Grey	1.40 sq. ft.

Wages — Marble setters, $9.50 per day; helpers, $6.50 per day; marble polishers and finishers, $7.00 per day.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard

Turpentine, 88c per gal. in cans and 73c per gal. in drums.
Raw Linseed Oil.....89c gal. in bbls.
Boiled Linseed Oil ....92c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per Lb.
1 ton lots, 100 lbs. net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13¼c
500 lb. and less than 1 ton lots	13½c
Less than 500 lb. lots	14c

Wage—Painters, $9.00 per day.
Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14″ long (average), $6.00 each.

Plastering—Interior—

1 coat, brown mortar only, wood lath	$0.43 yd.
2 coats, lime mortar hard finish, wood lath	.55 yd.
2 coats, hard wall plaster, wood lath	.60 yd.
3 coats, metal lath and plaster	1.10 yd.
Keene cement on metal lath	1.23 yd.
Ceilings with ¾ hot roll channels metal lath	.79 yd.
Ceilings with ¾ hot roll channels metal lath plastered	1.63 yd.
Single partition ¾ channel lath 1 side	.74 yd.
Single partition ¾ channel lath 2 sides 2 inches thick	2.62 yd.
4-inch double partition ¾ channel lath 2 sides	1.42 yd.
4-inch double partition ¾ channel lath 2 sides plastered	2.94 yd.

Plastering—Exterior—

2 coats cement finish, brick or concrete wall	1.03 yd.
2 coats Atlas cement, brick or concrete wall	1.28 yd.
3 coats cement finish No. 18 gauge wire mesh	1.80 yd.
3 coats Atlas finish No. 18 gauge wire mesh	2.08 yd.
Wood lath, $4.00 per 1000.	
2.5 lb. metal lath (dipped)	.20 yd.
2.5 lb. metal lath (galvanized)	.24 yd.
3.4 lb. metal lath (dipped)	.26 yd.
3.4 lb. metal lath (galvanized)	.30 yd.

¾-inch hot roll channels, $76 per ton.
Hardwall plaster, $15.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $16.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15.
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.
Wages—Plasterers, $11 to $12 per day.
Wages—Lathers, $8.50 to $9 per day.
Wages—Hodcarriers, $7.50 to $8 per day.

Composition Stucco—$1.60 to $2.00 per sq. yard (applied).

Plumbing—

From $58.00 per fixture up, according to grade, quantity and runs.
Wage—Plumbers, $9.50 per day.

Roofing—

Five-ply tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $26.00 to $40.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Pabco, 10-yr. roof, $8.50 per sq.
Pabco, 20 year, roof, $11.50 per sq.
Recoat, with Gravel, $3.00 per sq.
Wage—Roofers, $8.00 per day.

Sheet Metal—

Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—

Copper, $1.25 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).
Wage—Sheet metal workers, $9.00 per day.

Stone—

Granite, average, $6.00 sq. ft. in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.
Wage—Stone cutters, $8.50 per day. Stone setters, $9.00 per day.

Store Fronts—

Copper sash bars for store fronts, corner, center and around sides, will average 70c per lineal foot.
Note—Consult with agents.

Steel Structural—$92.50 per ton (erected) This quotation is an average for comparatively small quantities.
Light truss work higher; plain beam and column work in large quantities, less.
Cost of steel for average building (erected), $90 per ton.

Reinforcing—

Base price for car load lots, $2.80 per 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.
Wage—Housesmiths, $9.00 per day.

Steel Sash—

All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 80c per foot, laid.
White floor, 80c per foot, laid.
Colored floor tile, $1.00 per ft., laid.
Promenade tile, 80c per sq. ft., laid.
Wage—Tilesetters, $10.00 per day.

Illustration by courtesy of Stone Mountain Confederate Monumental Association

SUPERVISION

MOUNTAINS are moulded, not by labor alone...such colossal projects require scrupulous supervision of each successive step. Similarly, the faultless performance of Peelle Freight Elevator Doors is ensured by the exacting supervision of trained engineers who watch over every detail of construction and installation. Peelle Doors provide for every contingency of vertical transportation...rendering economic, efficient service...year after year. Deservedly the great task of controlling freight elevator traffic in thousands of buildings has been entrusted to Peelle Doors. ¶ If the Peelle catalog is not in your files, it will be sent gladly on request.

THE PEELLE COMPANY, *Main Office and Factories,* Brooklyn, New York
Boston · Chicago · Cleveland · Philadelphia and 30 other cities
San Francisco, 213 Minna Street; Los Angeles, 422 Pacific National Bank Bldg.

PEELLE Freight Elevator DOORS

"The doorway of America's freight elevator traffic"

FOREWARNED IS FOREARMED

DO YOUR salesmen canvass the architects, engineers and contractors blindly, hoping that there will be some kind of job on the boards? Do they trust to luck that after the call these men will retain a clear impression of your products, their application, etc?

The time to make a call is when the architect or engineer has a particular job on the board where your product or services can be utilized.

The Architect and Engineer renders a complete service that, if properly used, will simplify your sales efforts and make an actual saving in your sales expense.

This service will keep you advised daily of new building, engineering and roadway projects, advising when plans are being prepared, plans are being figured, contracts awarded, etc.

This service not only helps you contact the prospect at the most opportune time but relieves the architect, engineer and contractor of solicitations that seldom reflect benefit to either party. For this reason we have the co-operation of most architects, engineers and contractors in publishing this Advance Building Report Service.

We shall be glad to tell you about this Service and how you can obtain it.

The ARCHITECT *and* ENGINEER
1662 RUSS BUILDING
SAN FRANCISCO

American Institute of Architects

(Organized 1857)

Northern California Chapter

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The ARCHITECT AND ENGINEER

JANUARY
1928

A WORD TO THE WISE ARCHITECT ON SAMPLES

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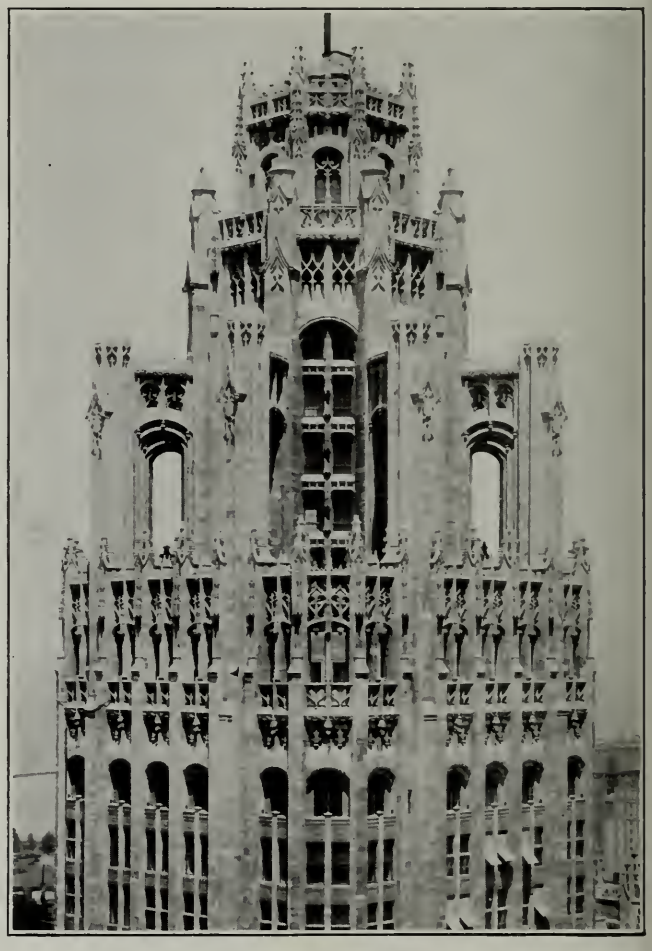

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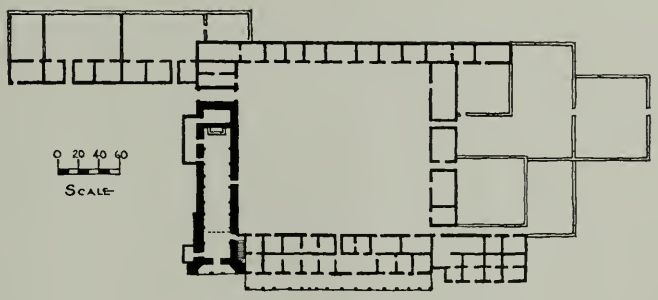
. ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

PUBLISHED 1883

No. 1—San Diego de Alcala

San Diego was the first of the California Missions to be founded. Father Serra dedicated the site in 1769. *Mr. Ford's etching shows a large portion of the mission in ruins even in* 1883. *At the present time it has almost completely disappeared. Several years ago there remained no more than a few low pieces of broken walls and a fragment of the front facade of the church.*



MISSION SAN DIEGO DE ALCALA, SAN DIEGO, CALIFORNIA

FROM AN ETCHING BY HENRY CHAPMAN FORD

The ARCHITECT AND ENGINEER

VOL. 92 JANUARY, 1928 NO. 1

ARCHITECTURE in the SOUTHWEST

By

Archie & Hutchins

THROUGH the southern parts of the states of Texas and California and along the valley of the Rio Grande, modern civilization and methods during the last two decades have developed with an alertness that is amazing.

This has been due in a large measure to the greater influx of business and residential interests during the last few years. Attracted by unusual agricultural and industrial advantages that the southwest has to offer, many people have come to this section from all parts of the country, easing up the already over-crowded population of large northern and eastern cities.

This has brought into a practically new region, new ideas: the sense of refinement displayed in New England colonial, blended with an atmosphere created by the early settlers in this section, and tempered with a revival of commercial interests in the newer and more scientific methods employed in the larger cities where ever-increasing business relations have necessitated a more complete consolidation of units.

Coupled with the romantic enthusiasm that the clear, dry climate of the west invokes, the present spirit is to combat problems with a keener view to a more effective and satisfying result.

Such problems as zoning, traffic regulation systems and sanitation now being fought over in the larger cities are establishing a precedent for the expansion of the future metropolis of the south.

Lighter weight materials and more economical methods of construction are taking the place of the old style heavy wall bearing construction employed in the past.

Through the increased co-operation of the various trades and manufacturers, and by the medium of a more effective advertising, the general public and the building profession have acquired a closer contact and a more thorough understanding of each other.

The average client is appreciating more and more the value from an investment standpoint, of a well planned and well designed structure with all the necessary features of ventilation, lighting and circulation well worked out.

In general the trend seems to be for a simplification of exterior design on commercial and other work and rather the piling up of masses than the beautification of a facade by over ornamentation as seen on many buildings of earlier date.

Domestic types in this section are strongly influenced by a close proximity to old Mexico, the adventurous and colorful land of the "Dons," their ranchos and town houses suggesting to us many treatments in planning our own

Photo by Atlee B. Ayres

DOORWAY TO MISSION SAN FRANCISCO DE ESPADA

homes. From them we get our inspirations for patios and sunken gardens—tiled foundations and walls—open loggias and iron balconies with pots around, and beautiful gardens of plants and shrubs that stay green the year around.

Photo by Atlee B. Ayres

WINDOW IN MISSION SAN JOSE, SAN ANTONIO, TEXAS

Even the most primitive houses of this ancient land afford a pleasant study by their variegated red tile roofs and whitewashed walls, brilliantly reflecting the intense sunlight and giving a sense of coolness and rest to the shaded spots under trees, all sharply contrasting with the green of the surrounding foliage.

The old missions of this particular section also play their part in lending to the country a colorful and historic background, made when the far flung arms of Spanish acquisition and colonization established them in a religious zeal and fervor that has left its mark in the history of the southwest. These old missions are in a remarkable state of preservation, portions of the color that once covered their whole facades, which must have made them grotesquely beautiful when first applied, still remain.

This background, together with a desire for European tradition voiced by many who travel abroad, creates a result that is not definitely a previous style but is a concoction of several, and with the idea of simplicity already mentioned in mind, is evolving a regional style of architecture that is different from other parts and that will be both pleasing and lasting in its enjoyment by all.

The accompanying photographs illustrate some of the newer examples of commercial and residential work that are being done in this section.

In the residence, while the Spanish farmhouse type was taken as precedent, especial consideration has been given to the planning of the principal rooms. The bed rooms are placed on the southeast to take advantage of the prevailing breeze and the windows made low to the floor and wide with deep reveals to afford coolness and shade. The living room fronted by an arched loggia commands a good view over the city and is also on the southeast by jutting out from the main house, at an oblique angle.

Tile floors and stairs on the main floor tend toward cleanliness and service and add a primitive touch that is in keeping with the other details of beamed ceilings and rough cast walls. Attention has also been paid to the effectiveness of the landscaping done by the presence of mesquite, huisache, cactus and other native shrubbery. The placing of clay jars and urns with growing plants adds to the interest and color.

In the hotel, the exterior was treated in a light buff brick with a lighter shade of stone quoins and belt courses. The plan is simple and

direct with the entrance arch on the main axis leading immediately to the main lobby which also has an automobile entrance on the side street. The lobby is uniquely treated with floor and wainscot of colored tiles in random and straight pattern and the ceiling beams richly stencilled in color. The walls are warm and the design of wrought iron lighting fixtures adds a picturesque quality to the whole.

The room floors are so designed that all rooms are outside rooms with interior baths and forced ventilation as is being used in many of the newer hotels throughout the country.

The top floor comprises a large ball room with adequate dining facilities and a raised stage at one end for the orchestra. An elliptical dome forms the ceiling of the ball room and the side walls have glazed casement doors opening on to wrought iron balcony guards so that when opened they admit the largest amount of breeze and afford a delightful view of the city. The floor is of terrazzo with colored border laid in brass strips.

Four huge lanterns of colored silks hang down from the ceiling and furnish the main lighting with additional lights on the side walls for subdued effects and change of coloring.

A coffee shop and Spanish grill connected with the main lobby and easily accessible from the street are located on the first floor.

The old and very picturesque San Antonio river, whose banks and midstream maintain a luxurious growth of ferns, lilies and overhanging grape vines, encircles the hotel affording a very pleasant outlook to every room.

THE NEW GRACE CATHEDRAL

The frontispiece in the December Architect and Engineer, showing the new Grace Cathedral in San Francisco, brought forth considerable favorable comment because of the architectural beauty of the design. Several noted architects, besides Mr. Hobart, it seems, have contributed their talent in creating this imposing structure. As early as 1907, the famous English architect, George Bodley, was engaged to submit plans for the proposed edifice. But before these could be revised by him, upon suggestions submitted by the committee, Mr. Bodley passed away. His successor, Cecil Hare, revised the plans and then Mr. Hobart became associated with Mr. Hare and the plans were adapted to local conditions, with particular attention to the physical difficulties of the site. The entirely

Photo by Atlee B. Ayres

ENTRANCE TO THE ALAMO, SAN ANTONIO, TEXAS

fresh conception of the structure prepared by Mr. Hobart has been approved by Ralph Adams Cram, noted eastern architect, who was commissioned as consulting architect. Mr. Cram says of these designs:

Photo by Atlee B. Ayres

DOORWAY TO MISSION SAN JOSE, SAN ANTONIO, TEXAS

"The problem of San Francisco Cathedral was one not easy of solution. Physical considerations implied, and even compelled, a treatment that departed in certain particulars from the established precedents of the Middle Ages. It was necessary frankly to meet these conditions, yet at the same time to obtain an architectural effect that should be impressive and spiritually stimulating, while the sense of religious and architectural tradition would be scrupulously maintained.

"In effect, the building is an epitome of the great art of the Christian Middle Ages. Through these varied motives, in their logical combinations, runs a certain element of modernity that makes the design unquestionably of this day and generation. No one could mistake it for a copy of an ancient structure. It is unquestionably of America, and of the 20th century.

"While the exterior is as vigorous, vital, and effective in its detail as one could ask, the interior promises to be no less impressive, perhaps, indeed, more so. The whole plan is clear, open, and spacious, with great widely spaced and very lofty piers supporting a clerestory, but without triforium, somewhat after the Spanish mode. The scale is large and powerful, the organism logical to a degree, while the vistas through aisles and chapels can only be strikingly effective in their combination of light and shade."

The seating capacity of the cathedral will be 3,200 and, with standing room filled, the great auditorium will hold 4,500. The length of the nave from rose window to chancel window will be 300 feet. The width of the nave will be 42 feet, 6 inches and the height 87 feet.

According to Mr. Hobart, with funds in hand the cathedral can be built from the accepted plans in five years, at a cost of $3,600,000.

The present Crypt, at California, Taylor and Jones streets, containing the foundation walls of the Cathedral, is known as the Founders' Crypt because it was built by the gifts of a group of pioneer families. Here have been held not only the regular Cathedral services but special services on exceptional occasions. The Crypt is none too large for its purposes, and overflow services have been needed on several occasions.

(*Other pictures of this house on pages* 65, 67, 69, 71)

RESIDENCE OF MR. P. L. MANNEN, SAN ANTONIO, TEXAS

Atlee B., and Robert M. Ayres, Architects

A PLEA FOR THE BURNHAM PLAN in SAN FRANCISCO

By George S. Hill ~ Consulting Engineer

"Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty."

DANIEL H. BURNHAM.

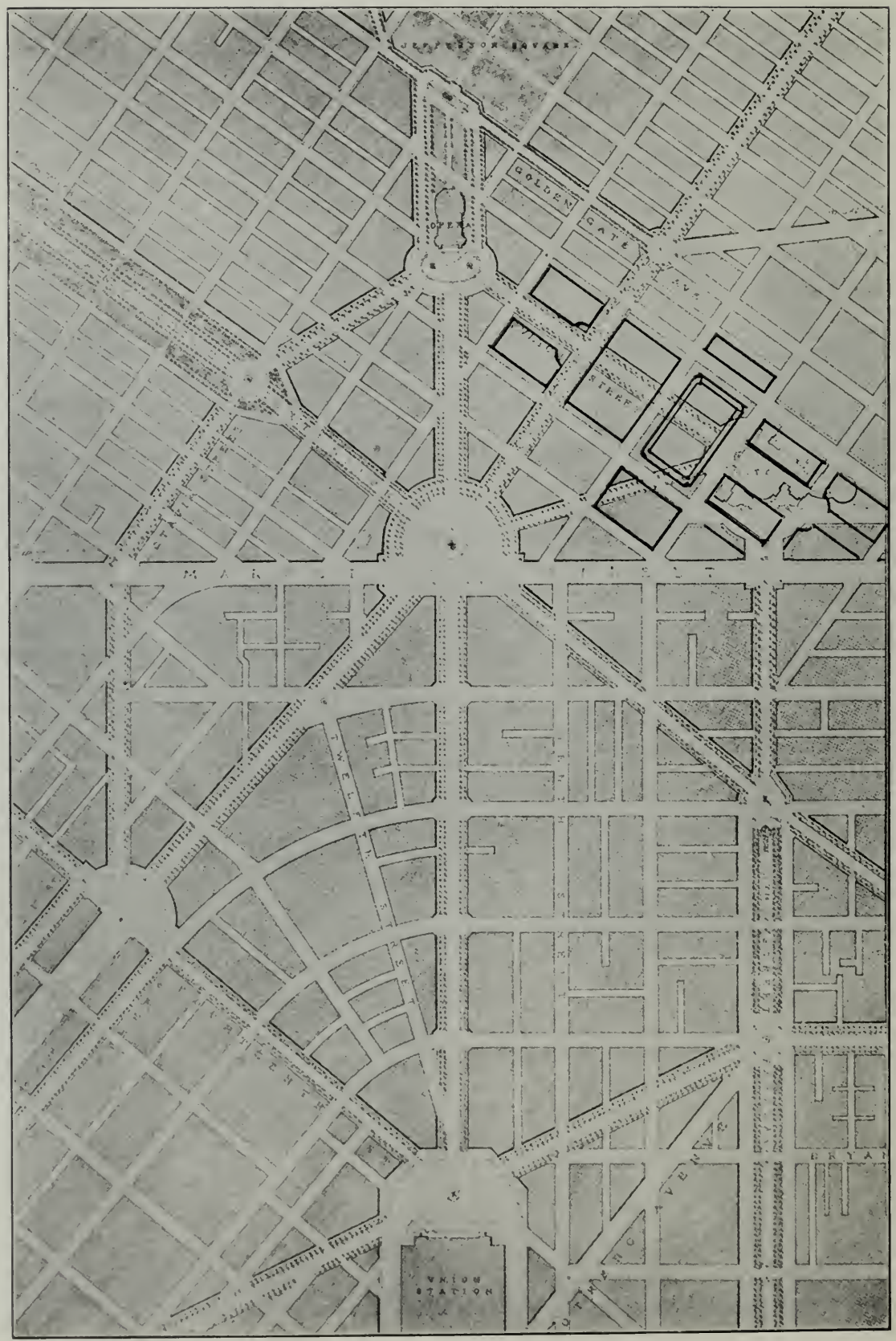
THE Burnham plan of San Francisco was made in 1905, the year prior to the earthquake and fire. In fact, almost the entire edition was burned at that time. A few copies were saved, however, and are available at the public libraries. For the preparation of that work a cottage was built on the slopes of Twin Peaks and an entire year was devoted to a close study of the topography and other features of the city by Edward H. Bennett, Willis Polk and their assistants. Mr. Burnham supervised the work and was engaged at the same time in making a plan of Manila.

It has often been stated, "What a pity the proposed changes in the street plan were not made following the fire." While to a certain extent that is true, the proposed changes within the burned area were after all a very small part of the entire plan. Much could still be done to put the plan into effect, as the city could now better afford to make many of the changes even with the improvements since added.

It is true that conditions have vastly changed since 1905 when the Burnham plan was made, particularly in the increased use of motor vehicles, yet there is something about a well conceived plan which survives. In spite of the number of automobiles in use, there is some doubt in my mind as to whether there has been an actual increase in street congestion, beyond what it would have been without the automobile. Who does not remember the congestion existing in the larger cities before automobiles came into general use? The modern vehicle is so much more efficient, both as to speed and control that it tends to reduce congestion rather than increase it.

It seems to me that there is a tendency to place too much stress upon the study of existing traffic conditions, applying remedies only when forced to do so. Instead, attention should be directed to making a comprehensive plan designed to avoid traffic evils, and providing for future traffic volume. In the Burnham plan, San Francisco is fortunate in having the foundation for such a plan. Adaptations to changed conditions will be necessary, no doubt, and in fact the report states, "It is not the province

SKETCH FOR 31 STORY OFFICE BUILDING FOR SMITH BROS., INC., SAN ANTONIO, TEXAS
Atlee B. and Robert M. Ayres, Architects



ORIGINAL PLAN FOR SAN FRANCISCO CIVIC CENTER

THE DARK LINES INDICATE PRESENT CIVIC CENTER BUILDINGS

of a report of this kind to indicate the exact details very closely."

Burnham's plan of San Francisco's Civic Center is reproduced for this article. The civic center as built is also indicated upon it in black lines in order that the inter-relation may be studied. Has the plan been changed so very much after all? Note the entire difference in function of the two centers, one being a plaza, as a setting for our public buildings, while the other is distinctly a traffic center. The city of Oakland is now considering just such a traffic hub for the Twelfth street "throat," as is here proposed for the intersection of Van Ness avenue and Market street. The perimeter of distribution here shown would be of great value in the years to come, and parts of it should prove no more costly or difficult to acquire than the recent extension of Van Ness avenue, which was surely a step in the right direction.

The most successful architects and planners are those who draw inspiration not alone from their own time but also from all human experience. When Burnham was engaged to make a study of our national capital, he first made a study of the principal cities of the old world, with Charles McKim and Frederick Law Olmsted Jr. After they returned they found that the original plan of the city of Washington, as made by Major L'Enfant over a century before, should be followed, and they so recommended.

One of the best examples of Burnham's work is the Chicago plan, and it is being faithfully carried out; in fact, the plan is taught in the public schools in "Wacker's Manual" and as a result it is understood and its value appreciated by all. The widening of Michigan avenue and Twelfth street (now Roosevelt Road) and the South Water street improvement, bear witness to the public support of the plan.

In an address before the Down Town Association of San Francisco, the late Willis Polk stated that he considered that a mistake was made when the plans were drawn, in that the studies did not also include San Mateo County, and urged that further plans be made to co-ordinate the work of both counties. The Regional Planning Bureau may fill that need in part, but its scope is larger. It was organized to co-ordinate the planning activities of the entire bay region and merits active support.

PASSING OF THE BATHTUB?

By H. H. Daley

BATHTUBS are out of date and should never be installed for public use as they are unsanitary, difficult to keep clean, take too much time to fill, and require too much space. If you question the first statement, just ask your family physician, and the second may be answered by either the housemaid or the hotel maid, or some member of the family who has to do this work. It takes a long time to rinse a bathtub and fill it with water of the right temperature. Also, in these days space is too valuable, especially in apartments and hotels, to consider bathtubs. Those using bathtubs are usually most extravagant with water, due to their not actually using the water at the time it is flowing in, and therefore they allow the tubs to become too full or to overflow with water that is either too hot or too cold. This means a waste of water, as it must be brought to the proper temperature by adding more hot or cold water.

Now, with showers, the bathers usually are actually using the water while it is running; therefore they have it at the proper temperature and always turn it off when finished. By actual measurement, a shower takes less than one-third the amount of water that is used in taking a tub bath.

Mention should be made regarding how much more sanitary showers are than tubs, even at home, as unclean water is immediately carried away in the shower, which is not so with tub baths.

With this idea properly presented to the customer, the plumbing fixture industry has done him a good turn and has lessened the cost of water heating service. The cost of water, the cost of heating water, and the maintenance of the baths are all subjects that need consideration, as they figure in the monthly budget and must be of interest to the architects, builders and owners.

WHAT are the TEN GREATEST EXAMPLES of AMERICAN ARCHITECTURE?

By Charles H Cheney

WHAT are America's greatest examples of architecture? Have we any buildings in California so outstandingly fine as to be considered among the ten best in the country? If so this magazine invites its readers to nominate them.

These questions are raised in a world-wide inquiry now being made under the auspices of the Art Jury of Palos Verdes Estates, California. All nominations sent to the editor will be forwarded to the Art Jury, and a few signed lists will be published from time to time until the inquiry closes.

Everyone is interested in knowing what are thought to be the greatest examples of art. Yet who can name the foremost paintings, sculpture, architecture or landscape architecture of the United States, the most remarkable, sublime and beautiful products of our civilization? And what list should we hold up as the world's greatest examples, the ones that everybody should know and enjoy? Is there any American example of any of these arts great enough to be on the world list?

To find an answer to these questions, recommendations are being invited for consideration in the inquiry being made, during the winter of 1927 and 1928, by Palos Verdes Art Jury and a National Advisory Committee representing a number of the foremost art institutions of the United States. The object of this inquiry, as stated in the first announcement, is to provoke discussion of what is most worth while in the arts. People generally will like to ascertain what painters, sculptors, architects and landscape architects, art critics, patrons of art and others interested, think are the greatest examples ever produced in each of the four major arts. It therefore has seemed profitable to start this inquiry, as part of the work in art education authorized for Palos Verdes Art Jury under the terms of its endowment.

The final exact word as to the greatest examples of art will never be spoken. But it should be possible to set up a list at the end of this inquiry which will give something to measure by. America lacks standards, particularly in the important art of landscape architecture, which, if more generally applied, would exert, next to architecture, the greatest environmental influence in the world. It is not necessary that everyone agree on a list of the greatest examples of art in the world. But once having established such a list on authority of a group reasonably well informed in the arts, it may serve as starting point for comparison with other examples in each of these arts and be useful at reasonable intervals thereafter to measure progress.

For convenience, the works of art under consideration are classified in four groups: Architecture, landscape architecture, painting and sculpture.

In reality it is only in the case of portable paintings and portable works of sculpture that any of these arts can ever be wholly distinct from all of the others. Mural paintings are not merely paintings but part of a more inclusive work of art which is a fusion of the arts of architecture and painting. Similarly a fixed work of sculpture is a part, with its surroundings, of a larger whole which is a fusion of the art of sculpture with that of architecture or of landscape architecture or both. A work of architecture is always a part, with its surroundings, of a larger composition (designed or accidental, beautiful or otherwise) which is in turn part of the landscape of its region, indissolubly connected with the landscape of all the world.

Some of the most beautiful things in the world are not works of art at all—flowers, animals, a sunset seen over the ocean. But wherever the mind and hand of man have consciously moulded that with which they have dealt,

toward arousing the sense of beauty in the observer, there is a work of art. The arbitrary classifications — painting, sculpture, architecture and landscape architecture—are not here used as mutually exclusive. The supreme beauty of any work of art is the first consideration whether it is the product exclusively of one branch of art or of two or more. In the latter case its classification would depend upon which branch of art appeared to have contributed most notably to its outstanding beauty. Only in case of serious doubt would it be entered under more than one classification.

The least difficulty will be encountered in interpreting the classification of painting. The greatest difficulty will probably be found in interpreting the classification of landscape architecture. All fixed sculpture and all architecture have relationships to their surroundings which in effect involve landscape design. There is an imperceptible transition from those undoubted works of art in landscape architecture in which the position, form, color and texture of every important visible element in the landscape was determined by conscious deliberate choice, to those in which most of the beauty is due to "nature" or to circumstances not contrived by any artist as such, and in which the creative artistry directly affects very few elements. This may be limited to selecting points of view and leading people skillfully to them, to small even though critical changes in foregrounds, or even to the purely negative task of avoiding artistic injury to an existing beautiful landscape when adapting the land to some human use.

In distinction from such triumphs of restraint, no matter how beautiful the landscapes which they have preserved or made enjoyable, we are concerned for the present purpose only with such arrangements of land and of the objects attached to it as are beautiful mainly because of the deliberate artistic skill which controlled the arrangement. And in distinction from works primarily of architecture or of sculpture, a work of landscape art may be defined as one in which architectural or sculptural objects, so far as they occur, are felt to be parts of a larger composition which has outstanding beauty as a whole.

When architecture alone is taken up, points to be considered are sublimity, beauty, fitness and logic. There is also that elusive quality of charm, which may be said to represent the "soul" of the structure. A notable perfection in all of these qualities may be found in a comparatively small structure, as well as in a large and costly one.

Discrimination is an important part of art appreciation, and it has been thought best to limit the list of examples selected to ten of each art. Such comparatively short lists can be more easily carried in mind by the average person, and ten reproductions of each of these four arts can be compassed within a volume of convenient and inexpensive size, when a final report is issued.

Final selection will be made as soon after April 15, 1928, as conveniently possible, by Palos Verdes Art Jury, after submission of nominations to the distinguished members of the National Advisory Committee, personnel of which is as follows:

PALOS VERDES ART JURY MEMBERS

Myron Hunt, Architect, President—Fellow and National Director, American Institute of Architects.

David C. Allison, Architect, Vice-President—Fellow American Institute of Architects.

James F. Dawson, Landscape Architect—Fellow American Society of Landscape Architects.

Robert D. Farquhar, Architect—Fellow of American Institute of Architects and Architecte Diplome de l'Ecole des Beaux Arts, Paris.

Jay Lawyer—Banker and executive.

Chas. H. Cheney, City Planner—Director American City Planning Institute and member American Institute of Architects.

ASSOCIATE MEMBERS:

Frederick Law Olmsted, Landscape Architect—Formerly member National Commission of Fine Arts and past president American Society of Landscape Architects and National Conference on City Planning.

Ralph Holmes, Painter—Otis Art Institute, Los Angeles, formerly in charge of School of Art Institute of Chicago and of Department of Painting and Decoration, Carnegie Institute of Technology, Pittsburgh.

Clarence E. Howard, Architect and City Planner, Syracuse, N. Y.—Member American City Planning Institute.

NATIONAL ADVISORY COMMITTEE:

Robert W. de Forest, New York City—President Metropolitan Museum of Art and President American Federation of Arts.

Miss Leila Mechlin, Washington, D. C.—Editor "American Magazine of Art," Secretary American Federation of Arts.

Dr. Edward Jackson Holmes, Boston, Mass.—Director Museum of Fine Arts, Boston.

Lorado Taft, Sculptor, Chicago—Member National Commission of Fine Arts, Washington. Author "History of American Sculpture," etc.

Andrew Wright Crawford, Philadelphia—Secretary Philadelphia Art Jury, City Parks Association and Fairmont Park Art Association.

Frank A. Vanderlip, New York City—Patron of the arts, formerly president National City Bank, trustee Massachusetts Institute of Technology, New York University and Carnegie Foundation.

Bernard Hoffmann, Santa Barbara—President Community Arts Association and Member Montecito Art Jury.

Announcement of the final selections will be made in this magazine as soon as possible after the jury's report is made.

Nomination blanks are being sent to a selected group of artists, museums, art schools, patrons of art, teachers, art critics and others interested, in the principal countries of the world. All lists to be considered must be in the mail before April 15. Communications about the inquiry should be addressed to Charles H. Cheney, Secretary, The Art Jury, Palos Verdes Estates, California.

* * *

The following were selected in 1885 as the ten most beautiful buildings in America at that time:

Trinity Church, Boston.
U. S. Capitol, Washington
W. K. Vanderbilt House, New York
Trinity Church, New York
Jefferson Market Court House, New York
State Capitol, Hartford, Conn.
City Hall, Albany, N. Y.
Sever Hall, Cambridge, Mass.
State Capitol, Albany, N. Y.
Town Hall, North Easton, Mass.

In 1900 about 200 persons (readers of "Brochure Series of Arch. Illus.") voted the ten most beautiful buildings in the United States to be:

National Capitol, Washington
Boston Public Library
Trinity Church, Boston
Congressional Library, Washington
Columbia University Library, New York
Trinity Church, New York City
Madison Square Gardens, New York
St. Patrick's Cathedral, New York
Biltmore House, Biltmore, N. C.
City Hall, Boston

Sumner M. Spaulding, architect of Los Angeles, has submitted the following as his choice of the greatest examples of American architecture today:

Mt. Vernon, Home of Washington
Lincoln Memorial, Washington, D. C.
Boston Public Library
Harkness Memorial Hall, Yale University
Pennsylvania Station, New York
Independence Hall, Philadelphia
New York City Hall
Columbia University Library
Chicago Tribune Building
Bell Telephone Building, New York

A GRUESOME USE FOR CEMENT

A FRENCH commercial traveler, lately returned from Persia, has communicated his impressions of the Persians to a Paris journal whose editor longs to instruct the public. In a most informative and entertaining article, the bagman has explained the method of laying on the "bastinado," and his account of an execution by hanging is considered a masterpiece of descriptive writing. Scoffers, however, declare that, in describing the punishment of death by cement, he mistakes intelligent Parisians for gullible readers of the London "Wide, Wide World," whose proprietor, some years ago regaled them with the super-extraordinary adventures of de Rougement . . . "We who have not enjoyed the advantages of foreign travel are ready—perhaps too ready—to believe most things. But we really must draw the line at being seriously informed that cement plays a part in the execution of Persian criminals. It is too strong" . . . Thus the skeptical public.

The literary commercial traveler is absolutely correct in his statement. The "cement" death penalty was first imposed many years ago, as the most suitable means of ridding Persia of regicides, the crime being viewed as a particularly horrible one. The culprit is placed in an upright, roomy, coffin-shaped box, his head appearing above the aperture, a scroll, bearing the victim's name, crime and sentence, being nailed to the woodwork. At a signal from the chief official present, cement is poured into the receptacle till the unhappy man's chin is reached. The work of filling the box having been completed, the execution party withdraws, and leaves the felon alone with his heart-rending shrieks. When all is silent, gravediggers topple the box into a deep hole which has been dug nearby.

Some months before the late Shah came into his kingdom, it was proposed to put cement to the use for which the inventor intended it, and to no other. But two attempts on the ruler's life caused the powers-that-be to reconsider the humane reform. Meanwhile, regicides tremble in their slippers.—George Cecil.

NEW IDEAS in INTERIOR COLORED PLASTERING

By C. J. Willis

THERE has developed in the last few years a demand among the architects and home builders for new ideas and textures in plastering, especially in California where we feel the Latin or Spanish influence so much and are blessed with such wonderful climatic conditions that suggest the Mediterranean. From this demand there is gradually developing a resurrection of what was long considered a lost art—the art of plastering in color. Centuries ago there were many beautiful things done in texture with colored plasters, and many are still in existence at the present time, which proves that the mechanics of those days were truly artists.

For many years all we knew in the way of interior plastering was a plain smooth plastered wall that had to be painted or papered, or a sand finish surface that we treated with paint or kalsomine. These walls so finished are very monotonous and give little expression of beauty or feeling.

A few years ago there was developed an interior colored plaster called "interior stucco"

Walls finished in California Stucco of Modified Spanish Texture

RESIDENCE OF MR. GEORGE L. MORRIS, GLENDALE, CALIFORNIA

(*See other illustrations on pages 93 and 95*)

which could be applied to walls as a finish coat by the plasterer and this stucco, being a very plastic material, could be so manipulated by troweling as to give any texture that might suit the fancy of the architect or builder. Interest in this new material became widespread and the demand increased tremendously for colored stucco interior.

The building public soon came to appreciate the fact that here was a material that would give the soft textured effects in color that are so much desired without the use of paints, and at the same time give a hard, permanent surface that would stand a great amount of abuse.

The economy of this material was obvious. When the plasterer's work was done, the walls were finished. Color and texture design were completed; no further decoration was needed. By this method you have not only a substantial wall, but one that makes a perfect background for the furnishings of a room.

Much research work was done in compiling information on textured plastering such as was done years ago in old Mexico and the Latin countries. New ideas in textures were developed until today an architect or anyone artistically inclined can give free expression to his desires for textured plaster in color.

The old Spanish, modified Spanish, Latin, Brocade, Damask and Tapestry textures can easily be worked out and when skillfully applied, are indeed things of beauty. You obtain depth of color that is impossible with paint, and the wall is permanent; colors will not fade and the nature of the material is such that the ordinary abuse that walls are subject to will not mar it. Many of the newer homes in Los Angeles and vicinity have been finished inside entirely with this interior stucco, and are creating a great deal of favorable comment.

The use of this material is not confined alone to residential work. Public buildings, such as office buildings, churches, theaters, auditoriums and schools are being finished in colored interior stucco. The architect and builder can readily see the economy in using this colored plaster, as it not only saves the expense of painting but future upkeep is also negligible, as the plastered surfaces can be gone over with a colored water stain very easily and cheaply, should one wish to change the color design later.

Stone textures, such as Roman Travertine and French Caen stone, can also be worked out with this interior stucco as when this material is applied skillfully you can get an exact reproduction of the above stones and at a fraction of the cost of the originals.

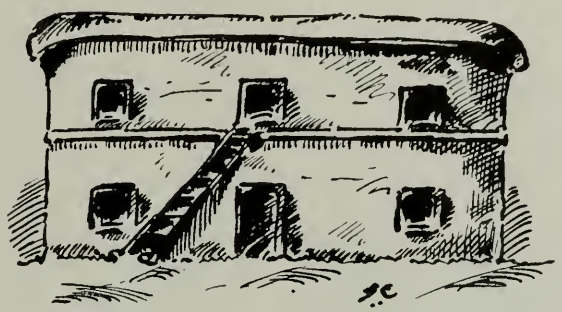
Many banking institutions have their main banking rooms finished with this material marked off in blocks, and in many of the newer homes, fireplaces are being built with this stone imitation, and it is really surprising the effect a stone mantel or fireplace gives to a living room. It adds that touch of coziness so essential to a well designed and furnished living room — a fireplace that is useful as well as ornamental.

A large theater in Philadelphia is now being finished entirely with colored interior stucco in texture and the process is being watched with interest by eastern architects.

Worthy of mention is the beautiful new restaurant building on the lot of the Famous Players-Lasky Studio in Hollywood. This building is not a movie set but a permanent institution and has been entirely finished with colored interior stucco. Soft textured walls and ceilings of old Spanish with a creamy background glazed over with a blending of burnt orange gives a most delightful and subdued feeling to the main dining room. This is indeed a wonderful place for the stars of Movieland to dine and relax during the middle of the day or spare moments between scenes. The private dining room is finished in soft tapestry texture with a multicolored background that is both artistic and pleasing.

HOUSES in ABYSSINIA where MODERN CUSTOMS ARE NOT ENCOURAGED

By George Cecil ~ Special Foreign Correspondent



THE DOUBLE-STORIED, FLAT-ROOFED HOUSE WITH CURVED EXTREMITIES

FROM the European standpoint of civilization the Abyssinian house is a most uncomfortable—and horribly unsanitary — habitation. It has, however, served the Abyssinian very well for countless decades, while the circular huts (in which the poorer class live) are preferred by their owners to the more pretentious edifices of the wealthy agriculturists and other well-to-do persons. In Abyssinia the natives are more or less contented with what they have, a form of philosophy which may be commended to most western people.

Unchanging habits, customs, and tastes, also have something to do with the state of affairs architectural.

The circular house, though built of stone, is a very rough and ready affair, while it is thatched with rushes. The thatching is carried out with considerable skill, the roof invariably being rain-proof, ropes and rushes, or straw, keeping the thatch in its place. The rains, by the way, are very heavy; and at certain seasons scarcely a day passes that the roof is not put to a severe test. Sometimes, the circular house is constructed of posts and straw, a thick hedge surrounding it, the inner wall being plastered with a mixture of mud and chopped straw. Chimneys are not considered necessary, and at night a few puppies, kids, and other obnoxious pets are allowed to mingle their snores with those of the family. The dreadful atmosphere beggars description . . . .

There are rectangular, square, and oblong houses, the last-named consisting of two parallel walls, the ends of which meet in a semicircle. These, too, are thatched; but the two-storied, flat-roofed variety does not furnish employment for the thatcher. Sometimes the owner of a two-storied house, finding the accommodation insufficient for the needs of his ever-increasing family, adds a story. The Abyssinians are, it may be noted, a patriarchal race, large families being encouraged. The sons and daughters, however, are utilized by the head of the establishment to look after the flocks and to till the land, taking the place of laborers, in fact. And those who shirk their duties do not care to make the attempt a second time, for the Abyssinian parent, having sound ideas upon the subject of filial obedience, does not scruple to chastise his progeny into a state of more or less cheerful submission. "Obey or be beaten" is the principle upon which slackers go about their work. Thus do they save their skins.

The man who can afford it builds himself several circular houses, the erections being surrounded by a stone wall, while a proportion of the space is devoted to an enclosure for the cattle, and a garden. There also is a shed with a raised floor of beaten earth, upon which the grain is prepared for cooking, while the women of the establishment congregate there in the intervals of performing the household duties. Some of these houses are as much as forty feet in diameter, being furnished with two doors and several windows. Clay takes the place of mortar; but it is so well kneaded that there is

seldom any sign of a draught. The walls dividing the four rooms support the roof, and upon them are hung fire-arms, clothing, cooking utensils and so forth, there being scarcely any receptacles. Indeed, stools, beds and tables are all that the Abyssinian allows himself in the way of furniture, and of these there are but few.

The floors (of earth beaten very hard) are raised; the glassless windows have shutters; and rushes—which harbor myriads of fleas and bugs—serve as carpets and rugs.

Lofty rooms are not favored by the Abyssinians, eight feet being the most to which they aspire, while in the rooms of the upper story a person of good height can hardly stand upright. The two floors are connected by an outside staircase, which terminates in a small terrace and a door. A raised divan of beaten earth runs around the room, and on it the younger sleepers spread their mats of dirty sheep's wool, all available space on the floor being taken up, seniores priores, by the beds of the elders. A wealthy Abyssinian, however, aims at a certain amount of comfort by allotting several houses to his family and dependents. The rafters and tiles are decorated with colored cloth; Persian carpets cover the floor; the window openings, extending to the height of the room, let in a fair supply of that very desirable thing, fresh air. 'Tis needed.

In contrast to these houses are the "dug-outs" to be met with in certain parts of Abyssinia. A hole, six or eight feet by five, is dug in the ground, being encircled by a wall of sun-baked bricks, to which a thatched roof is added. The floor is beaten hard, and it forms the resting-place of the whole family, who manage to survive a total lack of ventilation . . .

Sometimes the builder finishes off his work by crowning the apex of the roof with a piece of native pottery; and in rare instances a few tiles are let into the inner walls. But, as a rule, even the simplest attempt at decoration is discouraged.

Hotel du Dauphin,
12 Rue St. Roch, Paris, France.

(*Other pictures on pages 79, 81 and 83*)

MUSIC ROOM, HOUSE OF MR. J. P. FLANAGAN, SAN FRANCISCO
B. Cooper Corbett, Architect

The Potential Beauty of A CALIFORNIA GARDEN

By Professor John W Gregg ~ Division of Landscape Design ~ UC

IT IS claimed that the day of the old ancestral home is past, that the large private estates, heretofore developed and maintained by people of great wealth, are not only being greatly reduced in size, but are being cut up and eliminated entirely. The apartment hotels and the apartment house districts of our cities are growing in size and pretentiousness, and with such rapidity as to create the feeling among many people that we are in an apartment house age. An age in which "the home" in the lovely, old sense of the word is no more, or perchance it may simply be "a place where you go to change your clothes to go somewhere else." If all this is true, there are many contributing factors involved, but space or time will not permit of a detailed discussion of their relative influence; in fact there is a happier phase of the situation to be considered.

The prosperity of this country as a whole, or of the individual citizen, is not indicated alone by the number of luxurious apartment hotels that are being built and occupied, or by the number of automobiles on our streets, or the decrease in the number of large private estates, but rather by the indisputable evidence that the "small home" is here, and here to stay. This is clearly indicated by the unparalleled rapidity with which untold acreages are being subdivided and developed into the most substantial and attractive single family residence districts. The "Own Your Own Home" movement has taken hold of American life as a substantial result of national prosperity, and the natural desire in man to have his own "vine and fig tree" is again manifesting itself.

The allied arts and sciences are all contributing towards the improvement of this home life; particularly is this so with respect to the influence of city planning and architecture. Streets are wider, better paved, and lighted; lots are growing larger and more spacious; and the natural features and beauties of existing topography are being more generally recognized. The architecture of the small house is good, and in the majority of cases excellent, in spite of "bungalow town" and the "would be" architectural builders of "row houses." The artistically designed home is in growing demand, and the practical and artistic resourcefulness of the technically trained artisan is being recog-

HOUSE OF MR. T. RONNEBERG, BERKELEY, CALIFORNIA
Willis Polk, Architect

nized to the extent that the habitation itself is often developed at a sacrifice of convenience and beauty in its surroundings.

The landscape resources or possibilities of small surburban lots are seldom fully realized because the owners too often cling to the notion that such small areas hold forth no possibility of development for practical use or creative purposes, and may therefore be overlooked or neglected as far as "design" is concerned. "Just let the chore man cut the grass and set out some bushes when he has the time and inclination" is a common procedure, or on the other hand the owner himself may feel that "he knows it all," and it is unnecessary and an added expense to seek professional advice in such a "small matter." That this point of view is wrong may be learned from a glance at the smaller and older villages of England. Lot areas in such villages are usually smaller than those in our American suburbs, and yet the use and pleasure derived from those small areas by their owners is enormously greater than we derive from our own. The reason for this is plain: for centuries the Englishman has studied the small lot to make it yield the greatest possible service and beauty for the home. Traditional principles of design have thereby been evolved by this process which have been recognized and practiced by generations of landscape builders working with every conceivable condition of site and exposure. Privacy from the street and adjacent lots is secured by the ingenious placing of buildings and by their ground forms, or by the use of walls, fences, or hedges. Space was always reserved for vegetables and flowers, for service and for open lawns, arbors, teahouses, seats, and other similar practical and pleasing features.

In this country, on the other hand, privacy is lightly valued, and a highly organized plot of ground is rare because our modes of life—our thrift—do not appear to require such conservation of resources either for comfort or pleasure. If our home grounds are poorly arranged for recreative use, we can often depend on nearby vacant land, or we can take the "car" for the country. In case no fruit or flowers are grown, we can buy them around the corner. The main motive for a thorough development of suburban home grounds with us should be largely aesthetic, but that beauty cannot be enjoyed or made use of unless it is practically arranged or composed and distributed in such a way as to be usable. In this connection house and grounds are often found to be entirely divorced one from the other, whereas the association of these parts with one another should be no less intimate than the association of one room with another. The whole lot should constitute a structural unit, each part of which should be united in an organic manner with every other part. Limitations of space, therefore, require the intimate relation of one portion with the other for the sake of economy and beauty, which together produce an attractiveness in design, and a pleasurable usefulness.

The smaller the home grounds, the more carefully should they be studied and planned in order that no space may be wasted and every element or feature therein may be in scale and so placed as to perform its function in the scheme as a whole. Unity, harmony and simplicity are prime elements to be carefully considered, otherwise an effect usually referred to as a "mess" will be the result. In planning the landscape development of small home grounds it is well to remember that "simplicity is the prime element in pure beauty," and that small areas well planned exhibit a charm not displayed by larger landscape compositions.

GARDEN THEATERS

DURING a recent delightful and intimate hour with one of our prominent San Francisco architects, we chanced upon the subject of garden theaters. It happened while we were browsing through generous works on Italian architecture and gardens, in one volume of which were some loose clippings illustrating early and formal Italian garden theaters, which had been saved from magazines published perhaps a dozen years ago. The plans of the theaters were fascinating and I do not recall seeing any of them reproduced in the books thus far devoted to outdoor theaters.

We voiced our union of feeling that here in California the potentialities for such open-air theaters are very great and yet until now they have found very little expression. Our young people especially are taking an intense interest in the drama, in orchestral music and in the cultivation of the singing voice. Even when such garden theaters might not be used for finished performances, they would still serve admirably for the reading of plays or of individual parts and for the rendering of music in rehearsal.

Indoors the rooms may possibly prove too small or may be otherwise engaged just when a rehearsal is needed. Sometimes there are architectural features in the house design which may mar the acoustics or there will be encountered the deadening effect of draperies or of thick, soft rugs. But in the garden, when the right site is chosen and the place is given seclusion by means of dense, thick hedges or screens of trees and shrubs, the theater will become friendly, inviting and very intimate in character, with a sense of completeness and unity. During the hours of the day it will be enriched by fragrance, quiet color, the play of light and shade and the blue of the sky; perhaps, too, by the drifting over of vagrant clouds. By night, when properly sheltered from cold winds, by walls or plantings, the conditions will be most ideal. Then, hidden lights, properly focused, will lend magnetic charm to the picture and light will be employed only when and where it will best serve the noblest effect. Overhead the stars and the moon will add their magic and glamour with romantic appeal.

Such a theater may be designed in a form quite compact if desired, seating but a few persons such as would ordinarily gather in an average sized living room. And the property which is to contain such a theater need not be large. I have seen private gardens not exceeding one-third of an acre in extent, where quite ideal results in a garden theater could be practically attained. Such theaters may be conceived and carried out interestingly even on level topography but the possibilities for functional design and charm of detail naturally increase on the hillside.

Let us learn from the Italian and the Swiss, the French and the German peoples, the inestimable value and joy of living more in the open air; of even performing domestic chores and pleasant tasks in the garden, in suitable spaces to be set aside for such activities. We will then, by contrast, take increasing joy in all that may be considered the more aesthetic phases of the garden. And, as we walk along cool, bordered walks, reveling in pools and fountains and hidden retreats, let us turn into our home garden theater of the future and share with these good peoples of the old world, the healthful benefits and the inspiration, which they have felt and enjoyed for centuries.

EMERSON KNIGHT, Landscape Architect.
December, 1927.

SELLING *the* ARCHITECTURAL PROFESSION *to the* PUBLIC

By C. B. Lake

MAY I submit my reactions to the discussion of ways and means toward professional betterment for what they may be worth?

If real "plans and specifications are more the foundation of a building than the concrete that goes under it" then it seems necessary to have a look at the foundation under the architectural profession itself. Faults and marked settlement have been discovered in the foundations of the professional superstructure by our able cohort, Charles Kyson of Hollywood. His work in connection with its repair should commend him for a place in the forerank of the profession. That is, if he sees the job through to the clean-up. He has made pertinent revelation of poor materials and workmanship in the professional foundation through his article in the September issue of The Architect and Engineer. He has published the results of his borings in various other professional papers throughout the country and there should be no one in the ranks ignorant of the issue and his work for the cause. I am sure the profession will check with his conclusions and recommendations for repair in the main.

Good and sufficient plans and specifications must be built on the bed rock of a thorough understanding of the problem in hand and a keen judgment of what constitutes as adequate a solution as the particular conditions and funds available will allow. Too often the client is over ambitious and ill informed as to what can be done with the money available. Too often the architect accepts the account without sufficient assurance of proper financing and the job comes to grief and stands as an advertisement of the faults of the profession as a whole. Prospects should be scrutinized as closely as a banker looks into the conduct of a client's business before granting a line of credit.

Plans built up from a sound understanding of what constitutes an adequate solution must entail a judicious and businesslike discrimination in values. The result must endure for years as an economic success and advertise the ability of the profession to expend large sums with creditable efficiency and artistic ability. Is it reasonable to expect that the architect who cannot handle his own affairs in a businesslike

manner will be gathered into the arms of real business men as one to lead the way in the expenditure of large sums of real money?

That is what we are supposed to be qualified to do, but are we? Ask one hundred business men who have recently employed the services of the profession for their opinion. From these opinions it will seem that Mr. Kyson is advocating that charges for the services of the unqualified be substantiated by the costs of qualified and admittedly adequate service.

When the profession can actually and consistently co-ordinate in its designs sound economics, business practice, aesthetic refinement and structural safety, be the project an outdoor telephone booth or monument to great achievement, denying the title of the profession to those who cannot, then the fee will not be so hard to collect and necessary sketches will show their share of the profit. Then the clever sketchist will find worthy employment with the architect and the fast talker will find plenty of opportunity and more certain returns selling real architecture for the real architect.

Perhaps the A. I. A. is fully justified in its stand to conserve the dignity of the profession through rigid adherence to the canons. It would certainly be justified were the profession as a whole more worthy of public respect. The publicity campaign idea, if carried out at this time, would throw the limelight on a rather heterogeneous array of ability, all vouched for by the profession as a trial bottle. Let us be sure the money expended in advertising will not sell disappointments to reflect a taint on the duly qualified. Let us have a publicity campaign but let us first organize a standard of quality conducive to repeat orders. The worthy will carry on, handicapped as they are, without paid publicity but the profession will suffer increasingly as time develops additional competition unless it is brought up to grade and a standard product sold to the public. The A. I. A. having its laudable aims and purposes of long standing cannot be expected to lower its standards in order that the substandards may climb onto the band wagon. The profession must be brought up to grade through the medium of a separate and distinct organization with different aims and purposes, which assumes responsibility for conducting a paid publicity campaign and imposes and enforces new standards of service offered the public for its fee.

The services of the profession must stand the close scrutiny of the business man, the members of the National Realty Board, members of the Building Owners and Managers Association, the members of the Associated General Contractors, the banker and investment banker who take as security for funds advanced the product of the profession's ability. That money is a long time spent, if unwisely. That portion of the profession which cannot withstand the sincere criticism of such organizations should not be advertised with the funds of those whose work can and will. I hazard the guess that a very generous co-operation and support of all the above groups can be counted on to assist in raising the standard of service and selling the architectural profession to the public.

Through such a new organization within the profession each individual office, regardless of its qualifications before a state board, should subject itself to searching criticism of its product by such organizations as above suggested before being admitted to membership and the benefits of paid publicity. This may not meet with the approval of the dignified but if we cannot produce a service that can stand it, better take in the old shingle and get under the wing of a good salary in an office which can. There will be plenty of work in the offices of those who qualify and those who cannot will not last long without adequate endowment. The advertisement of the services of qualifying offices would result in invested capital and not just spent money. The clever artist, the business man and the engineer could join forces and gain admittance upon the combined good qualities of their product. Fees for admittance and dues for maintenance with a three per cent of net fees to support a publicity campaign should maintain such an organization. It will be said that this is a big job and nearly impossible, but it has been done in other lines and the contractors are making good headway with their effort to raise the standards in their line. It will take a strong hand at the helm and a generous co-operation on the part of the profession but it can be done and will be. The private banker is no more for the very simple reason that business could not hazard the risk of uncontrolled service no matter what the ability of the individual members of the profession. Watch for the same thing to happen to the profession that business men look to for the proper expenditure of vast sums of hard cash.

PORTFOLIO

of

SKETCHES ALONG THE MARIN COUNTY SHORES, CALIFORNIA

by

Leo Zellensky

Zellerbach
Sausalito Sept 10 '21

GREEN AND TAYLOR STREET APARTMENTS, SAN FRANCISCO

QUANDT AND BOS, ARCHITECTS

SAN FRANCISCO
PUBLIC LIBRARY

A QUAKE-PROOF FRAME FOR an APARTMENT HOUSE

WE HAVE heard the real estate agent trying to sell a house remark that this particular house was built as a home for the owner and not for speculation. This point was well taken since the guiding thought of the man who builds a home for himself is to build it substantially, weather and sound proof and quake proof if possible.

Co-operative home building, or community apartment building, must be guided by these very thoughts of a home builder to be successfully continued. Messrs. Bos and Quandt, designers and builders of the 14-story class "A" co-operative apartment building, now under construction in Rosseter Gardens, at the crest of Russian Hill, San Francisco, have built more community apartments than any other firm in San Francisco, and they ascribe their success in this particular line of building construction, to adherence to the principles of the real home builder.

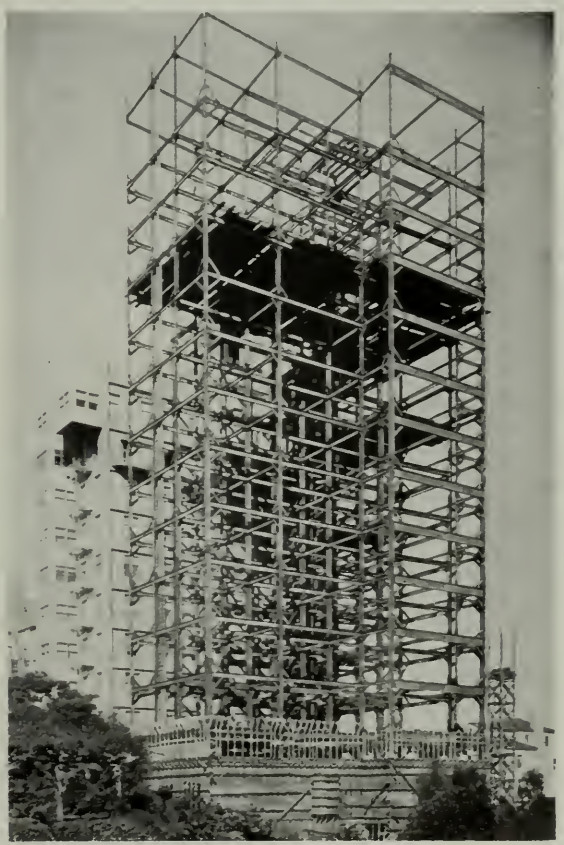
In the desire to make the structure on Russian Hill quake proof the builders were assisted first of all by the nature of the soil which is bed rock overlaid with a strata of hard clay. All column footings were carried to bed rock. Due to the slope of the lot the footings are at greatly different levels, and therefore were connected by heavily reinforced tie walls and tie beams forming a complete network.

The steel frame was designed for a lateral load far in excess of the requirements of the building ordinances. In the lower stories diagonal bracing is being used, consisting of 8″ channels and ½″ plates forming a cross. The channels have the function of keeping the bracing straight and still are narrow enough to be encased by the concrete of the walls without projecting beyond them.

In the upper stories kneebraces are used at the wall columns, reducing the clear length of the columns and wall beams and thus increasing their rigidity. They consist of 10″ and 8″ channels with thick webs able to develop the shear of the rivets.

All interior connections of columns and floor beams are made of heavy top and bottom angles, able to produce considerable bending movement in the floor beams. The number of field rivets used was about 70 rivets per ton of structural steel. Comparing this with 40 to 50 rivets per ton used in average apartment buildings the increase in stiffness is obvious.

Felix H. Spitzer of San Francisco is the consulting structural engineer.



STEEL FRAME FOR GREEN AND TAYLOR STREET APARTMENTS, SAN FRANCISCO

QUANTITY SURVEYING and the ARCHITECT

By C L Weeks

THE intelligence of the quantity surveyor concentrated on the problem of bidding methods will not only eliminate duplication of estimating, with consequent reduction of construction cost to the owner, but will also bring about many other improvements in practice. One of the most important direct benefits to the architect is the simplification of both plans and specifications. At the present time it must be acknowledged that in the unsuccessful and vain attempt of the architect to provide a specific instrument of purchase they are often unnecessarily elaborated, complicated and full of repetition. Quantity surveying will result in economical architectural production.

Surveys are bound to bring fairness in competition not only among architects seeking to obtain commissions from prospective owners but also among contractors bidding on work. The architect who is willing and able to give genuine service will have the wholehearted support of the surveyor, who will accept only plans and specifications that are clear, practical and specific. Special privileges, handing out architectural commissions to the favored incompetent, will meet with a stumbling block. Surveys will also encourage honesty by exposing the facts.

The architect who takes a real and justifiable pride in his work can rest assured that, in the use of surveys, the absolute necessity for exact knowledge on the part of the surveyor to properly prepare his work will require careful checking of plans and specifications for errors and omissions. The result is that to the really competent architect there is sure to be the reward of reputation for efficient accomplishment.

Surveys will eliminate squabbling over extras and disputes with contractors who are seeking to "break even." Contracts can be regulated by a schedule of prices covering extras by the surveyor in all matters of dispute and thus bring about harmony between the contracting parties.

Providing that the surveyor has the courage to be thorough in his constructive criticism, to be insistent in his suggestions and even demands for corrections that he knows are necessary to provide a specific instrument, free from the possibility of misinterpretation, the result cannot fail to bring good progress in the management of materials and labor.

The survey is based upon the law that to give is to receive and that every man is worthy of his hire. It cannot be used by an owner who seeks to get a contractor to do work without a profit. It is not favored by the contractor who seeks to hold the owner in an unfair advantage so that he may exact an exorbitant profit. It cannot be used by an architect who wishes to keep the greater part of his commission and give in return useless pictures and second-hand dribble that will enable a contractor to help rob the owner. It cannot, however, fail to bring to the unselfish the just reward of well-earned prosperity.

The architect should avail himself of the opportunity offered him by the surveyor to correct and perfect his drawings and specifications, through having his attention called to errors and omissions which are otherwise difficult to detect.

He should realize that the practical object of his drawings and specifications is to provide a definite and specific instrument for the purpose of determining the exact quantity of materials and labor for a structure.

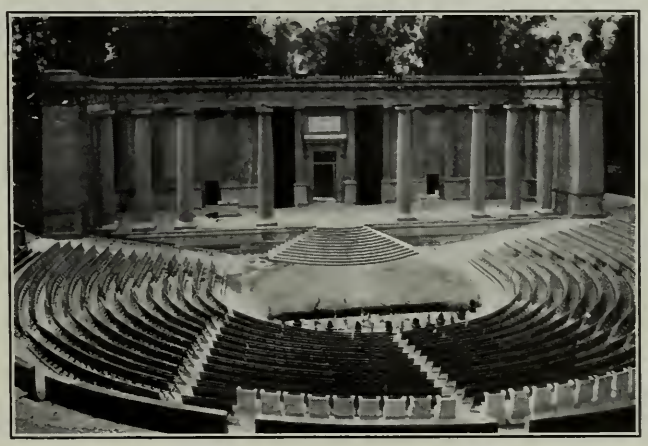
In order to encourage the competent surveyor to stay in the occupation of surveying as a professional engineer in the service of the public, rather than to be absorbed by the contracting business, he must have adequate remuneration; therefore it is the architect's duty to encourage the employment of the professional surveyor in the owner's interest, especially as it is not necessary for that employment to cost the architect one dollar. It should and may be paid for directly by the owner, and even when the contractor employs the surveyor it is the owner who pays his salary or fee indirectly, but with the difference that he does not receive the direct benefit of his labor.

ADEQUATELY CONTROLLED ARTIFICIAL LIGHT AIDS IN THE CREATION OF THIS IMPRESSIVE SPECTACLE.

MODERN ILLUMINATION FOR OPEN-AIR DRAMA

By Leo G Gianini

PLANNING the required artificial illumination for the production of Euripides' famous tragedy, "Trojan Women," in the Greek Theater of the University of California, in the spring of 1927, was difficult because of the many limitations imposed both by the theater and the play. The structure, as shown by the accompanying illustrations, is semicircular. The stage is beyond the seating area and most of the acting in the production was to take place directly on the floor of the theater. Because of this, very accurate light control was necessary; otherwise the audience occupying the highest priced seats close to the scene of action would be blinded by the glare of light designed for the actors. Furthermore, the illumination and layout had to be in keeping with the atmosphere of the tragedy. The director, Professor C. D. Von Neumeyer, was anxious to keep all equipment out of sight, which meant placing it behind the outer rim of



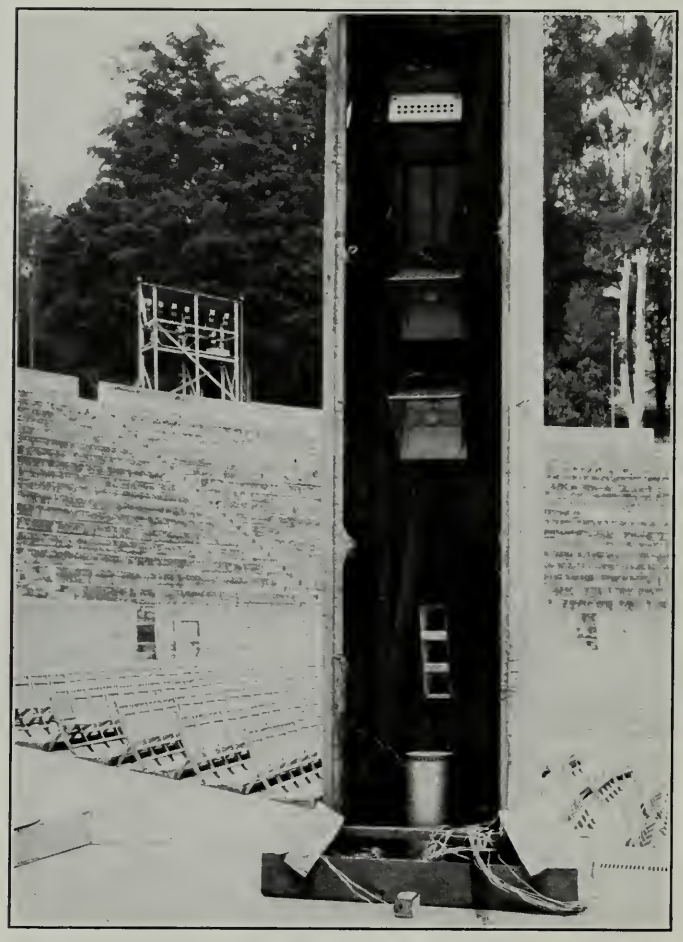
GREEK THEATER, UNIVERSITY OF CALIFORNIA, BERKELEY.

Illustrations courtesy of "Electrical West".

the theater, 125 ft. away from the actors.

The final lighting layout was designed by the lighting service department of the Edison Lamp Works at Harrison and the Illuminating Engineering Laboratory at Schenectady, and was executed by C. J. Holzmueller, a San Francisco theatrical equipment specialist.

The results surpassed the expectations of all those interested in the undertaking. Not only was adequate lighting provided for the viewing of the play, but an atmosphere was created which emphasized the ancient tragic and artistic background necessary for the setting.



LIGHTS AND SMOKE GENERATOR IN REAR OF COLUMN ON THE STAGE.

For the lighting of the areas of the main section twenty-four 1500-watt, G-40 incandescent spotlights, two 50-amp. arc spotlights and one 50-amp. arc searchlight were used. The incandescent equipment was used for the general —both clear and colored—lighting of the action area. The arc-lighting equipment was added in order to accentuate the whole as well as to produce the "fadeouts." In order to soften the shadows, the 1500-watt incandescent spotlights were distributed in three banks of eight each.

In addition to the provisions for color, the spots were equipped with long, cylindrical "spill" shields in order to prevent stray light annoying the spectators who sat close to the equipment. This also helped to keep the light off the upper portion of the scenery and in that way lent an air of mystery to the scene.

The two arc spotlights were equipped with iris shutters, and the searchlights were mounted in the center bank. With all of the above equipment operated at full intensity and without color screens, a fairly uniform intensity of 40 foot-candles was obtained.

In order to soften the shadows cast by the artificial columns which were set along the front edge of the stage, as well as to light the wings where minor action was to take place, lighting equipment was hidden behind four of the eight columns. The equipment consisted of three 1000-watt Olivettes, one equipped with a frosted, another with a red, and a third with a blue gelatin screen. In addition, electrically operated smoke producing apparatus, with low-wattage red lamps, was concealed in each of the artificial columns.

The two urns on each side of the main stage entrance, and the one above it, were also equipped with smoke-producing apparatus and amber-red colored lighting. This apparatus, developed especially for the occasion, worked particularly well and with good effect for well over an hour. This feature was of considerable importance as the play was carried on without intermission for an hour and three quarters.

The total connected lighting load was 60,500 watts, and the smoke heater connected load was 10,000 watts, making a grand total of 70,500 watts.

The lighting and effects on the stage proper were operated by telephone control through an operator at a secondary dimmer board located off-stage. This was necessary because of the number of circuits required and the distance from the main board to the stage units, roughly 200 ft.

The audience pronounced the lighting artistic, finished and flawless. As though this were not a sufficient tribute, consider how well planned it was when the first performance was staged with but one "light" rehearsal.

Economic Studies Show

THE NEED of SKYSCRAPERS

By W C Clark ~ Economist of S W Straus & Co

THE present tax structure and level of land values in the central business districts of our leading cities can be sustained only if the owners of sites in such localities are allowed to develop their holdings to their maximum economic intensity.

Our studies have brought out the fact that while on a chosen plot of ground in New York City, 75 stories was the most profitable height, it may be assumed that the same theories would apply to all American cities, modified, of course, according to conditions in the locality such as street widths, size of plot, land values and zoning law restrictions. Where land values are lower at present than the typical site in New York, lower heights, of course, would be in accordance with the principles of sound investments.

These studies also suggest that as property value increases in the future in various American cities, it may be necessary for building heights on certain strategic sites to grow in order that the owner may secure the maximum return from their investments. When the studies were begun, 75 stories was the height arbitrarily selected by the writer and his collaborators as beyond the probable maximum of height to secure the greatest economic efficiency for this specific site. Much to our surprise, however, the studies showed at 75 stories the curve of economic efficiency was still mounting upward, and, had the survey continued, a height of 85 or 87 stories might have been found to be even more profitable than 75 stories.

Sane regulation of building heights in the interest of public health is of course to be desired but any attempt to put into effect a flat level restriction of 8 to 10 stories advocated by some zoning enthusiasts who profess to find the source of all human ills in the centralized city which is itself the natural product of powerful economic and social forces will result inevitably in a severe deflation of land values and a complete disorganization of the whole tax structure. Moreover, despite frequent claims to the contrary, the deflation of land values in the central business districts will not be offset by a corresponding appreciation of values in the outlying sections, for the decentralized city will be found to be not only a less efficient but also a more expensive mechanism for carrying on commercial and certain (though by no means all) types of industrial activity.

In the case of certain plots of very large size and appropriate location the most economical development may involve rearing a structure skyward to the height of 75 or more stories. For the normal plot of moderate size, even in the central business section of New York, the principle of diminishing returns usually sets an economic limit considerably below this giddy height, while the average plot in the city as a whole will still probably find its most economical utilization in a structure of perhaps 4 to 10 or 12 stories.

These were some of the conclusions derived from a recent exhaustive investigation involving the hypothetical development of a solid block in the vicinity of the Grand Central Terminal, New York City. A full city block was chosen partly because under the New York zoning law the really tall building gets a fair chance only on a very large site and also because it was believed that the trend of the future is towards this type of development. Certainly this conviction was strengthened by the results of the study and particularly by the straightforward. efficient and inexpensive design which the large lot made possible, by the permanent safeguarding of tenants' light and air and by the imposing mass and proportion of the logical improvement of such a site.

Detailed plans were drawn for the erection upon this site of eight different buildings vary-

ing in height from 8 to 75 stories, each occupying the full block within the limitations imposed by the present New York zoning law. The cooperation of a large number of leading architects, consulting engineers, building contractors and building managers was obtained in checking plans and specifications and estimating cost of construction, operating expenses, gross and net income, etc., and it is believed that the study represents the most authoritative and most scientific determination of this particular problem that has ever been made.

Preliminary analysis of the data obtained indicates that on a plot of this large size—200'x 405'—with land value approximating $200 per square foot, the most economical development was the 75 story building rising 917'10" from the sub-basement floor and with a tall central tower representing in itself a large building of approximately ideal proportions. Increased cost of steel, elevators, mechanical equipment, etc., increasing wastage of net rentable area for the various building utilities (particularly the elevators, every added one of which wastes a considerable plot of otherwise rentable area on every floor) and the mounting burden of "carrying charges" upon the huge investment during the lengthening construction period brought what the economists are wont to call "diminishing returns" as the building soared. These increases, however, were less rapid than had been expected because of the large size of the building, and were also, in part, offset by the improved light and air and the superior efficiency of rentable space on the higher floors.

The estimated net return upon the $42,000,000 investment involved in the 75 story structure was 9.1% as compared with 8.8% for the 63 story building and 8.4% for the 50 story building. The heavy burden of taxes and interest charges upon the land reduced the net income of the 8 and 15 story building to 2.8% and 4.9%, respectively. The table below shows not only the net return upon the gross investment in the case of each building but also the percentage which the increased income resulting from the last addition of stories bears to the increased cost necessary to add the additional stories.

Building	Net Return Upon Gross Investment	Net Return Upon Increased Cost of Last Addition of Stories
8 Story	2.8%	20.7%
15 Story	4.9%	19.1%
22 Story	6.1%	15.1%
30 Story	6.8%	19.7%
37 Story	7.6%	18.3%
50 Story	8.4%	14.0%
63 Story	8.8%	11.2%
75 Story	9.1%	.. ..

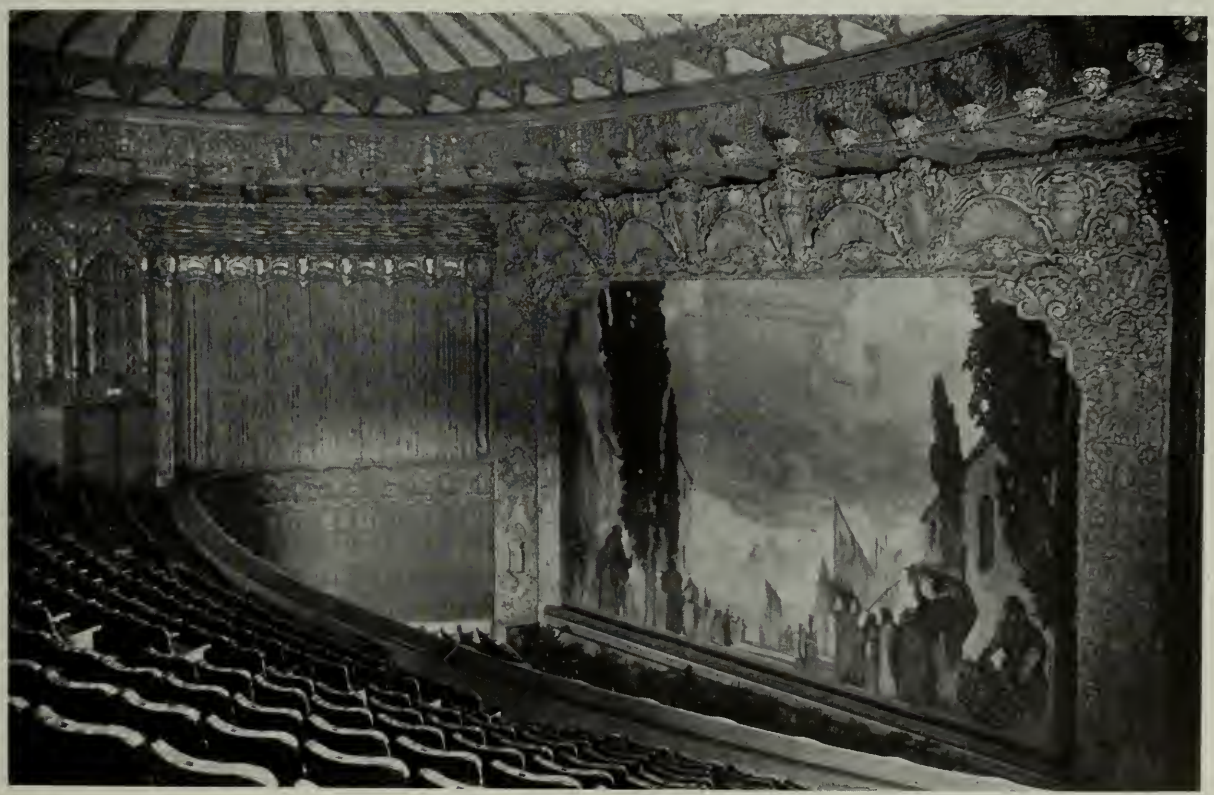
The figures given are preliminary and may be subject to some slight revision. The conclusion may also be drawn from the table that it has not been demonstrated that a building higher than 75 stories, (say 85 or 87 stories) would not give a better return than the 75 story building. This is true. When the study was begun, it was felt that 75 stories would represent a point somewhat beyond the true economic height and that the curve would turn down at, say, the 50 or the 63 story height. When this supposition was proved erroneous, time was lacking to carry the investigation further.

It is obvious that on a smaller plot the economic limit would have been reached at a lower level. The smaller the plot, the more rapidly will the principle of diminishing returns accomplish its results and the sooner will the true economic height be reached. Each city plot presents an individual problem and its most economical development must be determined in each case by a careful consideration of all the governing factors. In addition to size of plot, numerous other factors bear upon the problem, such for instance, as the shape of the plot, character of the location, the type of improvement, the efficiency of the architectural and engineering plans, the value of the land, the level of construction costs, of route and of interest, rents, etc.

This is by no means a blanket endorsement of tall buildings. Some tall buildings, existing or proposed, are doubtless justly characterized as "freak" structures, but the attempt to further height restriction legislation by the contention that the tall building is an economic fallacy should be roundly condemned.

Zoning enthusiasts will find their soundest argument in the necessity of height regulation as a means of safeguarding community sunlight and air. Any flat level restriction is to be avoided whether based on this ground or the currently popular "congestion" argument which to a large extent confuses the effect of mere growth with that of tall buildings and would seek to stunt growth and progress by accepting as permanent facts street capacities determined by our forefathers in the age of the horse-drawn vehicle. In the long run economic laws are inexorable and will not brook artifical restrictions.

BELASCO THEATER, LOS ANGELES
Morgan, Walls and Clements, Architects



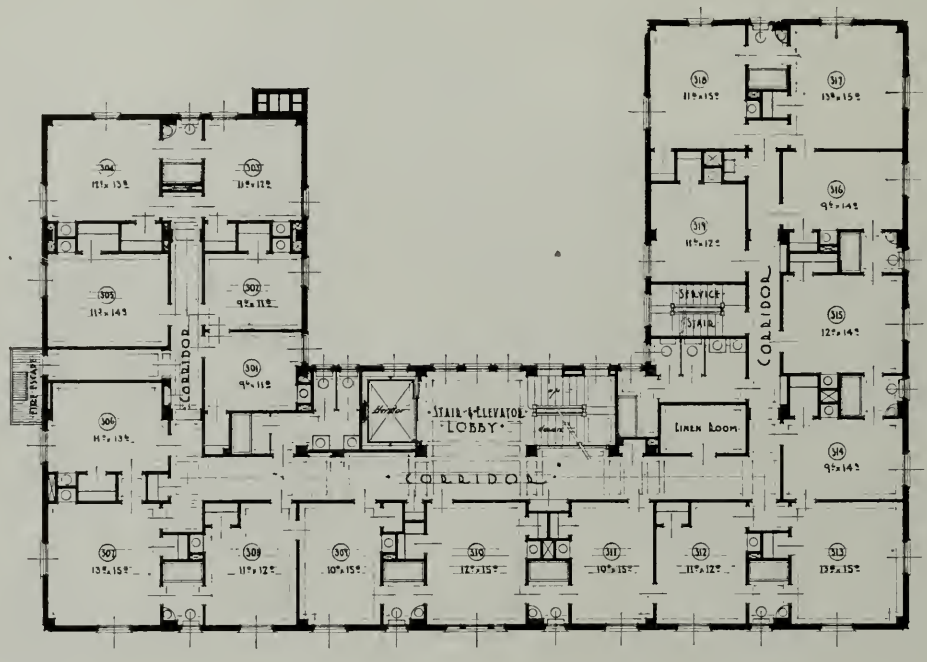
BELASCO THEATER, LOS ANGELES
Morgan, Walls and Clements, Architects

MUSIC BOX THEATER, LOS ANGELES
Morgan, Walls and Clements, Architects

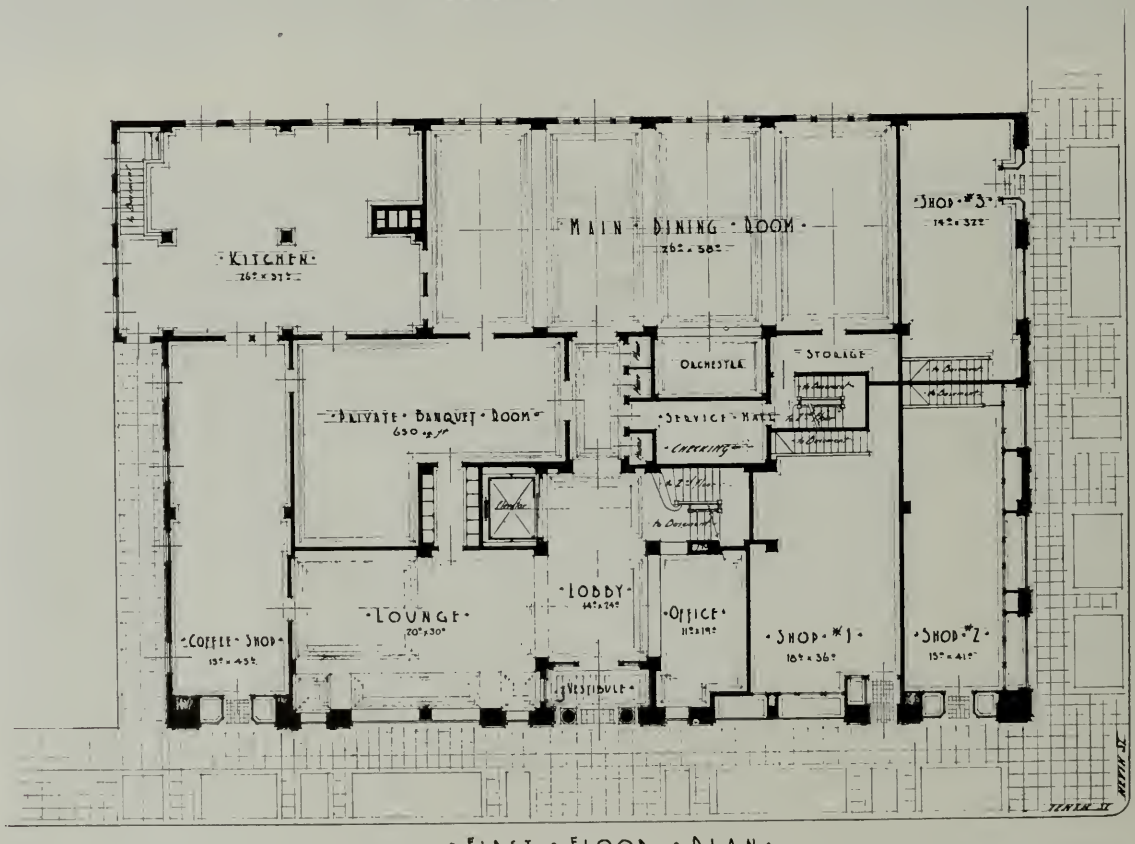
MUSIC BOX THEATER, LOS ANGELES
Morgan, Walls and Clements, Architects

HOTEL CARQUINEZ, RICHMOND, CALIFORNIA
James W. Plachek, Architect

LOUNGE, HOTEL CARQUINEZ, RICHMOND, CALIFORNIA
James W. Plachek, Architect



TYPICAL FLOOR PLAN



FIRST FLOOR PLAN

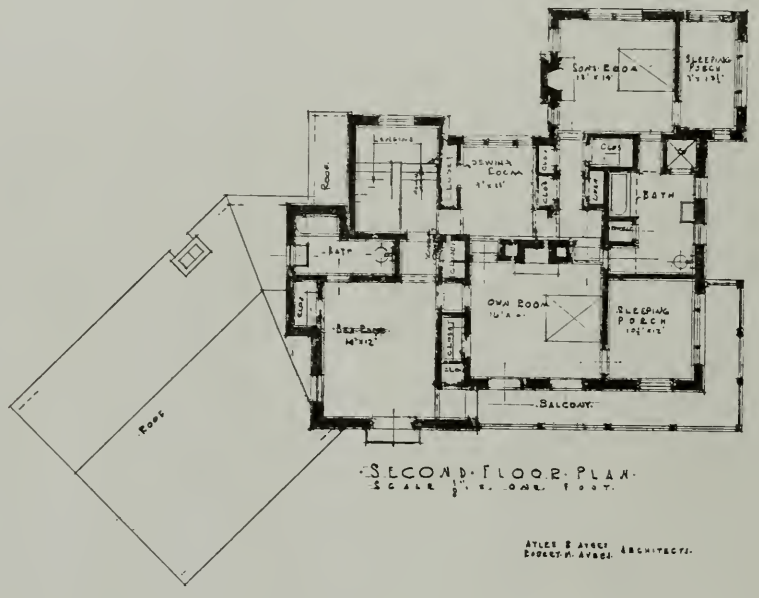
PLANS, HOTEL CARQUINEZ, RICHMOND, CALIFORNIA

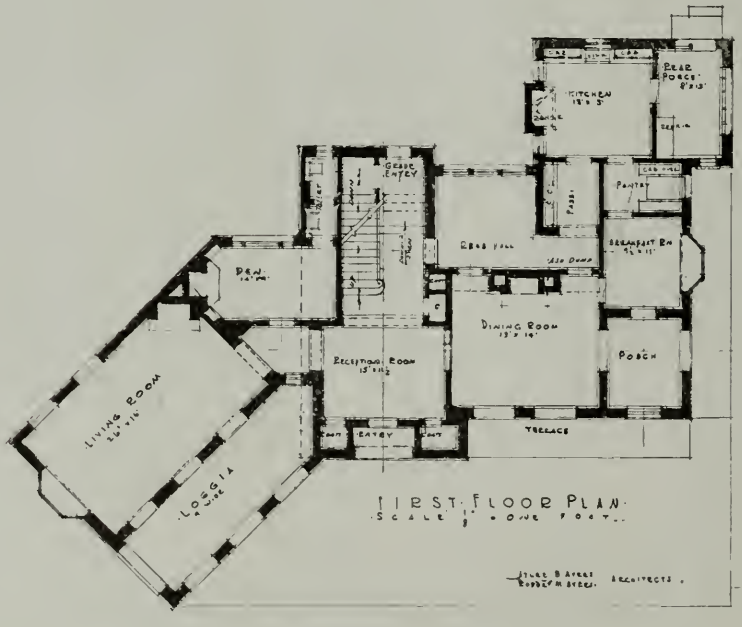
JAMES W. PLACHEK, ARCHITECT

Photo by Atlee B. Ayres

RESIDENCE OF MR. P. L. MANNEN, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS





PLANS, RESIDENCE OF MR. P. L. MANNEN, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS

RESIDENCE FOR MR. P. L. MANNEN, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS

PORCH, RESIDENCE OF MR. P. L. MANNEN, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS

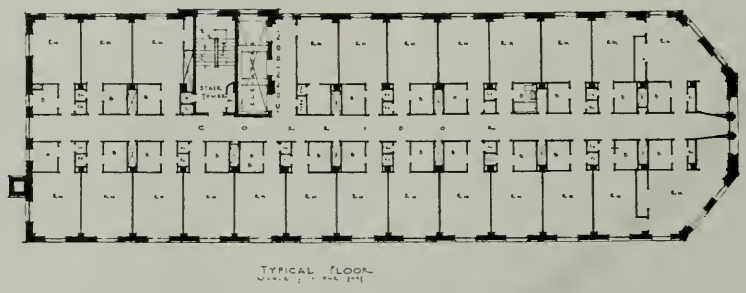
ENTRANCE DOORWAY, RESIDENCE OF MR. P. L. MANNEN, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS

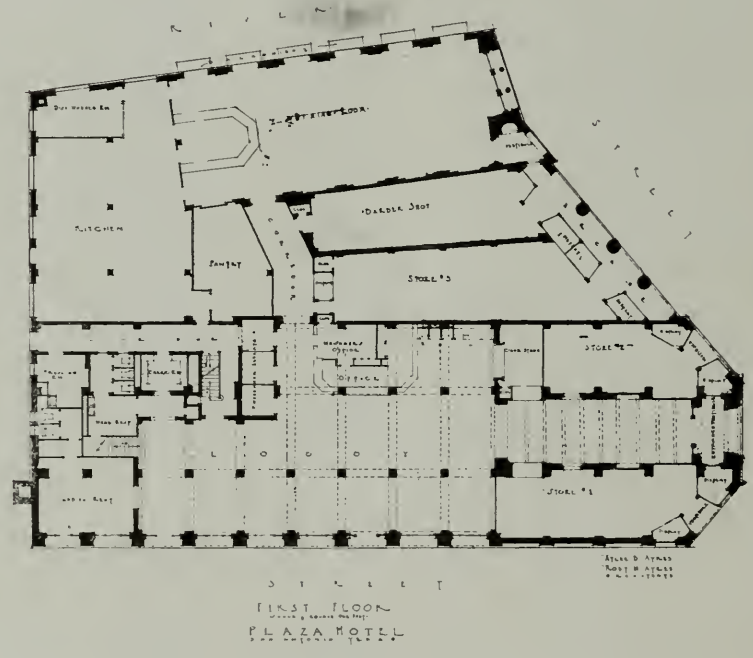
Photo by Harvey Patteson

PLAZA HOTEL, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS



TYPICAL FLOOR PLAN, PLAZA HOTEL, SAN ANTONIO, TEXAS
Atlee B., and Robert M. Ayres, Architects



GROUND FLOOR PLAN, PLAZA HOTEL, SAN ANTONIO, TEXAS
ATLEE B., AND ROBERT M. AYRES, ARCHITECTS

Photo by Harvey Patteson

CORNER OF LOBBY, PLAZA HOTEL, SAN ANTONIO, TEXAS

ATLEE B., AND ROBERT M. AYRES, ARCHITECTS

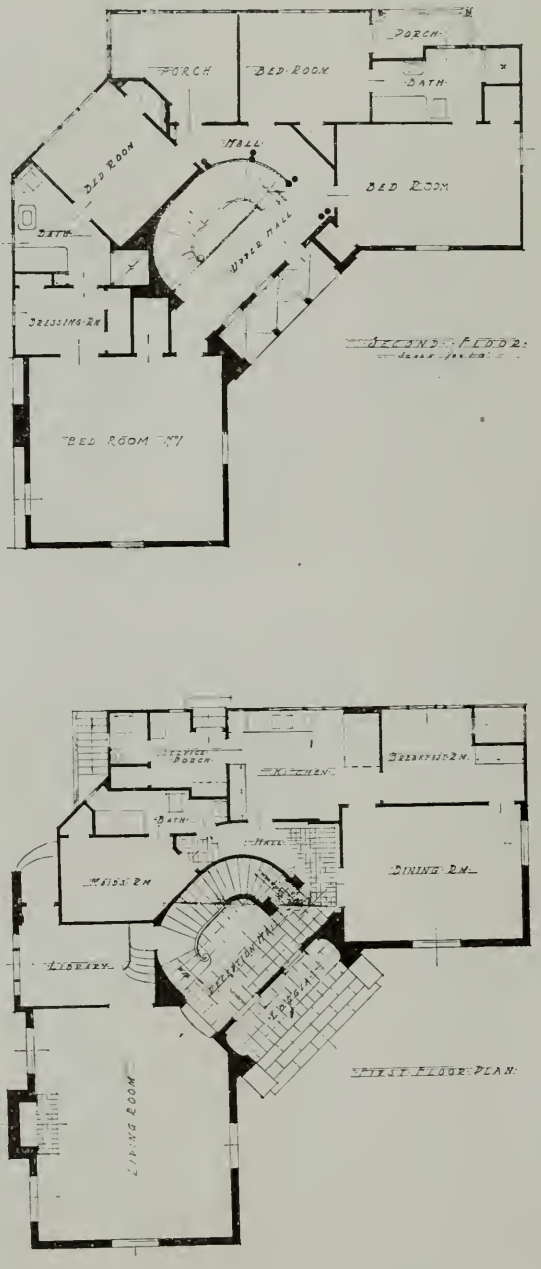
Photo by Atlee B. Ayres

DOORWAY, MISSION SAN JOSE, SAN ANTONIO, TEXAS

Photo by Lothers & Young

HOUSE OF MR. JOHN P. FLANAGAN, SAN FRANCISCO

B. COOPER CORBETT, ARCHITECT



PLANS, HOUSE OF MR. JOHN P. FLANAGAN, SAN FRANCISCO

B. COOPER CORBETT, ARCHITECT

HOUSE OF MR. JOHN P. FLANAGAN, SAN FRANCISCO
B. COOPER CORBETT, ARCHITECT

Photo by Lothers & Young

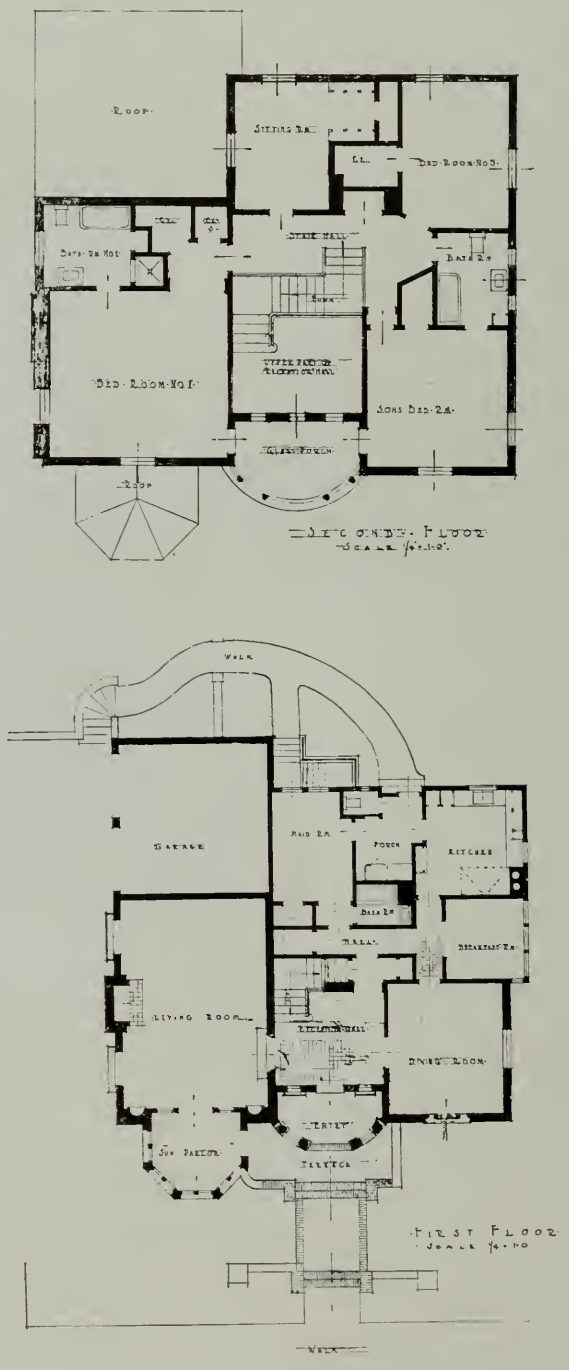
ENTRANCE HALL, HOUSE OF MR. JOHN P. FLANAGAN, SAN FRANCISCO

B. COOPER CORBETT, ARCHITECT

HOUSE OF MR. H. E. VAN HORN, SAN FRANCISCO

B. COOPER CORBETT, ARCHITECT

Photo by Lothers & Young



PLANS, HOUSE OF MR. H. E. VAN HORN, SAN FRANCISCO

B. COOPER CORBETT, ARCHITECT

Photo by Lothers & Young

ENTRANCE HALL, HOUSE OF MR. H. E. VAN HORN, SAN FRANCISCO

B. COOPER CORBETT, ARCHITECT

Photo by Gabriel Moulin *Finished with Caen Stone and California Interior Stucco*

LOBBY, MARK HOPKINS HOTEL, SAN FRANCISCO

WEEKS AND DAY, ARCHITECTS

Sandstone Interior Effect

PACIFIC SOUTHWEST TRUST & SAVINGS BANK, PASADENA

CURLETT AND BEELMAN, ARCHITECTS

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Photo by Mott Studios

Finished in California Stucco of Modified Spanish Texture

RESIDENCE OF MR. GEORGE L. MORRIS, GLENDALE, CALIFORNIA

Photo by Mott Studios *Finished in California Stucco of Modified Spanish Texture*

RESIDENCE OF MR. GEORGE L. MORRIS, GLENDALE, CALIFORNIA

FITZPATRICK'S CHATTER

AH, AH, we are discovered! A very high authority, none less than a county commissioner for Cook county, of which Chicago is a part (whose mayor won his recent election very largely because he definitely committed himself to the task of making George V. keep his snoot out of our civic affairs), declares that any architect can design Chicago's proposed great Convention and Civic Hall, a $15,000,000 affair which, after all, says the eminent authority, is merely a matter of planning four walls enclosing a great arena. "There's nothing to an architect's job anyway. He sends out a $50.00 a week superintendent to do all the work."

Such is the esteem in which our great and glorious profession, is held by some, and alas perhaps most, of our authorities and scads of the building public as well.

The profession must be somewhat to blame for this condition. Engineers, doctors, lawyers, come in for many a rap, severe criticism, etc., but seldom for utter contempt. Wouldn't it be worth while for the architects to do a little examining of conscience to see if they have not achieved such reputation by their own fault, and merit to a degree some of the low esteem in which they are generally held? I have never heard it stated in public or even by a political phrase-maker that railroad building consisted of laying two rails along the ground, over mountains, rivers, and such things, and any goop could do it, or that surgery consisted of cutting into a fellow's tummy, taking out an appendix or something, sewing up the cut and there you are: any soda fountain clerk can do it!

Should the profession fail to find good and sufficient reason for the public's attitude, I can modestly refer its members to a number of articles in the architectural press, some of recent date and others of ten, twenty years and even greater antiquity in which I have called their attention to the short-comings, bad practices, etc., that it seemed to me would, if unremedied, inevitably bring upon it just such discredit. Well, it is here now, and what are you going to do about it?

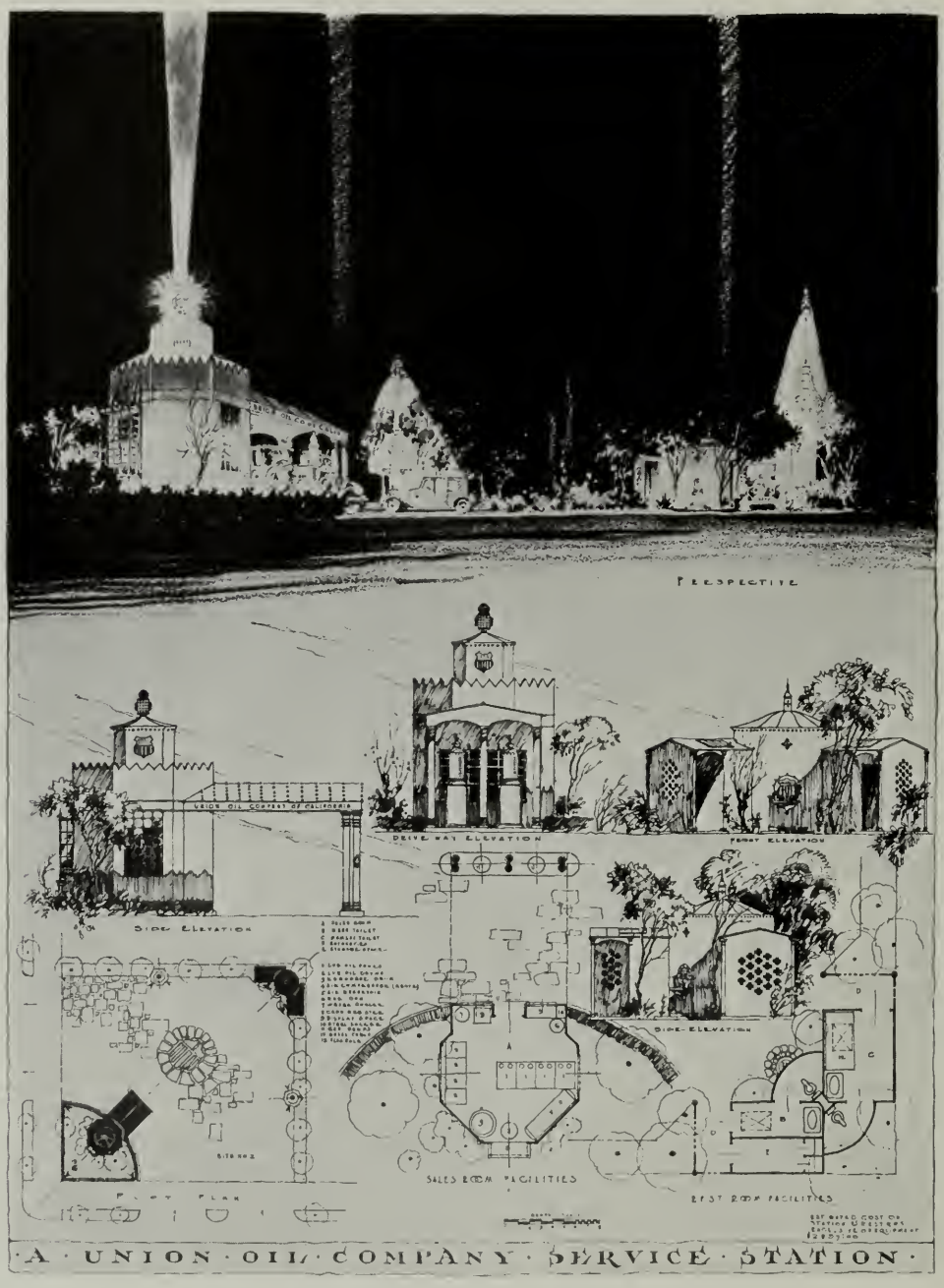
The Chicago Tribune and many others, whose opinion may or may not be very heavy, are clamoring for a general, a "world-competition" for the great civic hall. The county authorities had thought of having the work done by the regular county architect, aided by a half-dozen or so hand-picked confreres.

I am not quite set in my own mind just which is the better way, direct selection or competition. True, the latter way often uncovers a genius that otherwise would remain undiscovered. For instance in the Chicago Tribune competition, Saarinen was found and launched; his was easily the best, most logical and artistic design there. The competition "discovered" him but that did no good as far as that building was concerned for he was awarded second place. The building that was erected is most excellent, very artistic, very satisfactory, albeit somewhat illogical, but why didn't they give the winner the work direct? Why the competition?

Most of the latter are farces at best. The competitors do not produce the best that is in them, they cater to the judge or the committee. The wise ones do at any rate, and submit what they think will meet with their favor. I remember a prominent expert competition judge of some years ago, also a professor, who wouldn't even look at a drawing that was not in the style he favored most and taught. Natural, perhaps, but a dinged poor way to be a judge. In fact this whole competition matter hinges on the judges you have. Few men can do that work with any degree of justice or even intelligence. Most men are fuddled by so many drawings, such varying styles and presentations. Still more are so prejudiced by their own likes and dislikes that they can see nothing else and damn all else. Others are carried away by a clever presentation of a poor design and not one man in a hundred has the faculty of correctly balancing and adjudicating the several and unconnected component parts of a composition. In fine, it takes rare good judgment and training to be a good judge.

And who is generally made a judge? A successful practicing architect, more often than not a name, a man of great executive ability, a fine director of an office and getter of fat commissions, but with about as much architectural discernment and ability as has a yellow tomcat. Most competitions make me sick, dismal farces, wasted effort and another reason for the public's disdain and contempt.

(Turn to page 104)



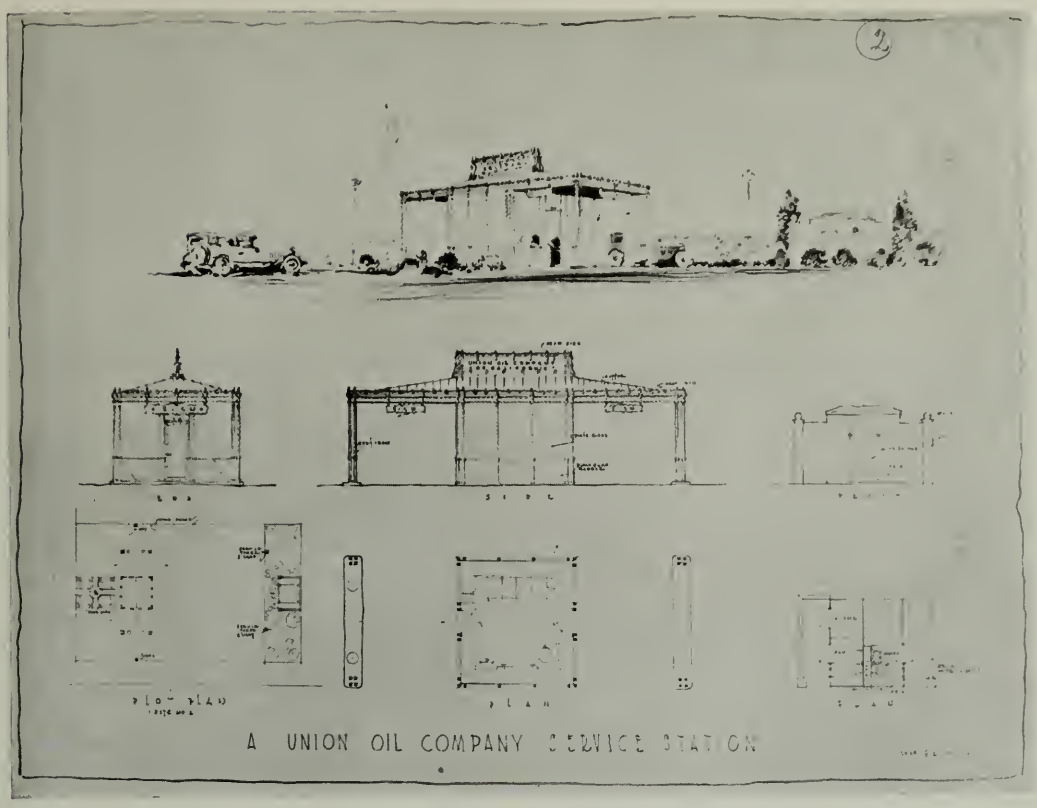
FIRST PRIZE AWARDED TO LYLE REYNOLDS WHEELER

WINNERS *of* GASOLINE FILLING STATION COMPETITION

Winners of the Union Oil Company's competition for a design for a dignified oil filling station, have been announced. Over 100 entries from all sections of the Pacific Coast were received and passed upon by the jury of award.

The winning design was submitted by Lyle Reynolds Wheeler of Los Angeles. It is of purely modernistic architecture—a type really adaptable to all Pacific Coast localities. Several unusual architectural features, not ordinarily found in service station buildings, are incorporated. Lighting effects are utilized in a way that has never been approached before.

Harbin F. Hunter, also of Los Angeles, won second prize. His design was likewise of a modernistic type of architecture, and it is distinc-



SECOND PRIZE AWARDED TO HARBIN F. HUNTER

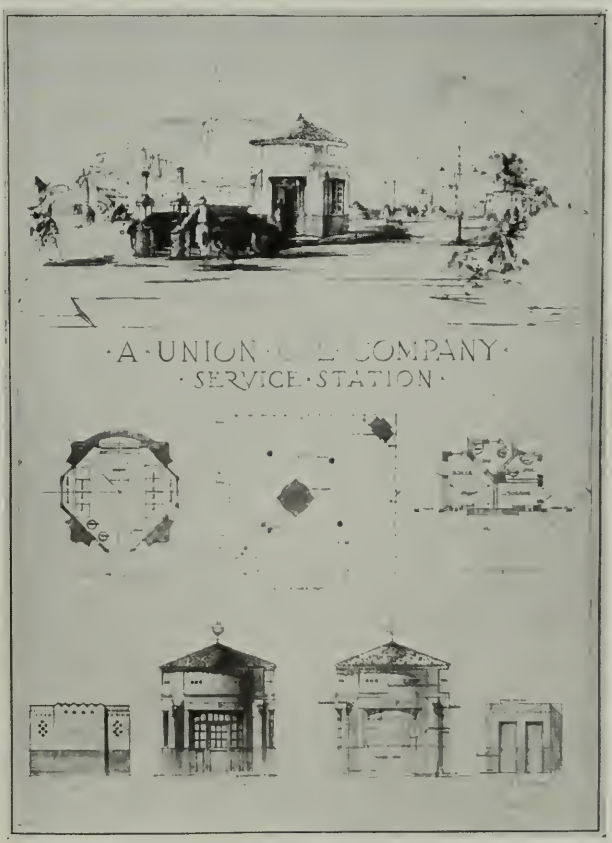
tive in that only three materials are used in its construction, these being metal, marble and glass.

Modified Spanish was the motive used by Harry Sims Bent in his third prize conception.

Plans submitted by Roy H. Kelly, C. F. Bird, Robert A. Lockwood, W. F. Mellin and Louis E. Korn received honorable mention.

The awards were made by a jury of three, Reginald D. Johnson, past president Southern California Chapter, American Institute of Architects, and winner of the national award in 1925 for residential architecture; Stiles O. Clements, of Morgan, Walls & Clements, and L. P. St. Clair, vice-president of the Union Oil Company. In announcing the awards the jury stated that the quality of the designs submitted ranked very high.

It is not the intention of the Union Oil Company to standardize on the designs submitted in the construction of its service stations; neither will these be reproduced intact. They will merely be used as types from which the best features for operating stations will be adapted, keeping in mind the desire to create nothing that will conflict with neighborhood or city development.



THIRD PRIZE AWARDED TO HARRY SIMS BENT

The
ARCHITECT AND ENGINEER

SINCE 1905

Published Monthly in the Interest of the Architects, Structural and Mechanical Engineers, Contractors and the Allied Trades of the Pacific Coast.

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Vol. 92 JANUARY, 1928 No. 1

Doing Things on the Coast

THE East is looking to the West for its architecture. If you are dubious about the truth of that statement just look over the architectural journals of recent months—those published in New York and Chicago. You will find in them California buildings of many types with plans and details and a generous sprinkling of text matter, all of which is, indeed, complimentary to the profession on the Pacific Coast. It has caused us to wonder whether this generous space giving is due to lack of good material in the East or a desire to compete with our Pacific Coast publications. Maybe both. At any rate The Architect and Engineer seems to be in greater demand in Eastern cities than ever before, which would seem to indicate that California architecture is wanted on the other side of the Rocky Mountains.

The Architect and Engineer welcomes this change of attitude toward the Pacific Coast by our Eastern brethren. It is pleasant to think that our talent is appreciated. It is such a different spirit from that previously displayed. There is an almost endless field here, with enough good material to go around many times, so we say again to ye Eastern brethren—welcome to the fold!

A Matter of Civic Pride

GASOLINE filling stations have become so numerous in the larger cities that their type of construction and general appearance are having a marked effect upon the architecture of their immediate surroundings. Standardization in design has been the keynote of the major marketing companies with the result that stations which might be in harmony in one district struck an inharmonious note in another. In the immense chain of service stations that have become so numerous throughout the length and breadth of the country seldom is it found that the stations fit in or blend with the development of the neighborhood; quite frequently they offer a marked contrast to and detract from the architectural beauty of the adjoining buildings.

Recognizing this fact, the Union Oil Company of California is attempting to develop various types of stations so as to remedy this condition and mark the way for more harmonious settings. To this end it has recently carried on a contest for the purpose of securing designs of service stations which would be adaptable to the particular locations in which it operates and be of civic value to the various communities. In this the company has had the splendid co-operation of the American Institute of Architects.

That the movement to combine beauty and utility in service station construction found favor not only among the architectural profession but also among civic bodies is indicated by the number of entries in the competition and also by commendatory editorial comment and expressions from various public officials. Over 100 entries from all sections of the Pacific Coast were received and passed upon by the jury of award, whose report, together with plates showing the three best designs, may be found elsewhere in this issue. The sponsors of this competition are to be congratulated and it is hoped its success will encourage other companies to show the same fine spirit of civic pride.

Tribute to Coast Architecture

IT IS always interesting to hear what outsiders have to say of our Pacific Coast architecture, particularly if these opinions emanate from an unbiased source and are of a favorable nature. The following tribute was recently paid our churches, theaters and public buildings by William M. Kinney, general manager of the Portland Cement Association, as a climax to a tour of the western cities in company with other officials of the Association:

"Everywhere I see churches, theaters, libraries, club buildings and other structures built of monolithic concrete with skill and beauty surpassing anything I have seen in the east. They all seem to possess a distinctive type that sug-

gests an approach to a truly American style of architecture.

"Such structures as the Los Angeles Public Library, the Metropolitan Theater, University Club, Wilshire Boulevard Congregational Church, Shrine Temple and many others show an originality of design and a skill in construction which is exceptional.

"Your commercial buildings, too, are remarkable for their beauty. The Hollywood Terminal building is one of the most beautiful commercial structures in America today, in my opinion."

Mr. Kinney pointed out that the type of construction used in these buildings—monolithic concrete—shows a development and an understanding of early American mission architecture. Continuing, Mr. Kinney said:

"This type is characterized by large areas of massive walls, unbroken by joints; deep set windows; rectangular lines and stucco exteriors of extreme beauty. The mission style of architecture is especially well suited for monolithic concrete construction.

"Monolithic structures such as these are actually molded to form. The architect plans a building embodying lines of mass and immobility expressive of the nature of concrete; the builder constructs forms of wood or steel in conformity with his plan. Then these forms are filled with plastic concrete, which quickly hardens into a stone-like mass. The building as a result is a one-piece unit of man-made stone.

"The buildings I see here are wonderful examples of this type of construction. They are so well done that architects in other parts of the country are planning similar structures embodying many of the features that have been developed here."

Views and Events

LOOKING down on the street from my high windows during a rain, I am conscious of an anomaly.

Time was when this was "The Land of Sunshine, Fruit and Flowers." This was in the days before Rotary, Kiwanis, and Dynamic Slogans (all capitals, please, linotyper; they cost no more and are themselves Symbols of Dynamism). Now we declare succinctly that "San Francisco Knows How." Just what it is Los Angeles does I forget for the moment, but it is doubtless something equally vital and comprehensive, and expressed with like precision. Chambers of Commerce of countless other communities about the state have them all doing things not inferior in significance.

Now the original motto—I suppose that is what it was called in its day—undoubtedly had its shortcomings. Beside being a bit passive to a culture imbued with a dynamic psychology and the ideals of Service (cap. again, linotyper), it unquestionably borders on the sentimental and turgid. A certain rhythm it has, perhaps in excess. In short, it is too exuberantly poetical. Of late it has appeared that Art —poetry along with the rest—pays; and in the face of adequate returns there may be a swing back to the old slogan.

Meanwhile, what I started to say was that "The Land of Sunshine, Fruit and Flowers," although as definitely outmoded as the ladies' skirts, sleeves and hats of the eighteen-nineties, none the less embodies a conception which has not disappeared from the minds of the most hardheaded—the aspect, I mean, of a free and luxurious nature, and the ideal of its potential counterpart in life.

Now a land so featured and favored one naturally expects to be colorful and gay. Where bright flowers are reputed to be had for the asking there would seem to be no cause for reluctance in requests. Nor should color end with flowers. It should permeate all life in all its phases and aspects. And the strange thing is that our environment tends to become progressively and incorrigibly neutral, not to say drab. People fear color, on their persons, in their accessories, in their architecture. We have become emboldened to tolerate a dash in a fountain pen, but a building which exceeds gray, white or buff is immodest. In recent years colored automobiles have made their entry; yet they still remain far outnumbered by black, or blues and reds so dark that they count with the blacks in the procession. Some time ago San Francisco street cars began to appear in clear yellow. My heart leapt. At last, I thought, air is to enter the streets and the traffic streams will become visible life. But not so. Somebody's courage or vision failed; and the streets still flow with vehicles indistinguishable from the pavements. Yet one need only cross the bay to have a demonstration of the vivacity that color in street cars can bring into the city life.

Now as I look down upon the street from my high windows during the rain, I am conscious of an anomaly. I do not mean the fact of its raining in the Land of Sunshine, Fruit and Flowers. Nothing so irritates me as those tourists who

imagine that a country could be tolerable in which it never rained. The curious thing is this —that the color we deny ourselves during the radiant spring and the mellow fall of the year we are now bringing into the gloom of the winter rain. Threading in and out along the sidewalks far below go long raincoats and round umbrellas, yellow, blue, red, green, orange, purple—what color, in fact, is lacking? Valiant support to the minority of colored machines.

Who would have imagined that San Francisco should be at its gayest in a rainstorm?

* * * *

TAKEN as a group there is unquestionably no body of citizens as safe and sane as architects. On principle they countenance no idea which has emerged since the eighteenth century (except such as have become imperative under the pressure of economic necessity). This, it will readily be agreed, is the acme of safety and—well, at any rate, of safety. Yet every now and then, for some inexplicable reason—surely in spite of his training—an individual architect will go wrong. Here, for instance, is Mr. Arthur North, A. I. A., falling with a resounding thud, and apparently proud of it, in the Passing Show of the November Western Architect.

Mr. North begins by quoting with approval some rather subversive sentiments from Lewis Mumford. Mumford, he says, "humanizes architecture and associates it with living people." Suspicious right at the outset! What may architecture have to do with living people? Is not the implication of our entire education that everyone connected with Architecture (capital A) is long dead?

Then (since we are speaking of education) Mr. North goes on to remark, "The question arises, is it easier to educate, architecturally, the client or the architect?" You might imagine, in charity, that this query is merely facetious. The context makes it only too painfully evident that it is intended to be serious. Now it is not only true, as I pointed out above, that the architect religiously repulses every idea subsequent to the eighteenth century. He furthermore knows and accepts everything up to that epoch, when, by common consent, the history of art ceased. You can't trip him up on a detail of plan or a moulding profile of a single European building (provided it is old enough); and if he happens to specialize in moving picture theaters, he has his other continents down as cold. No, Mr. North's aspersions on the architect's education are entirely gratuitous. There is absolutely no excuse for a graduate of any architectural school slipping into anything which was not, or could not have been done somewhere in the world by the end of the eighteenth century.

Shall I go further? "They (the 'successful Eastern architects') even fastened their vogue on Washington, making it the most deadly monotonous city, architecturally, in America." Mr. North! Mr. North! we protest that this is nothing short of treason to the Corinthian Order! Do our laws recognize no crime of "lèse monumentalité"? That qualifying "architecturally" may be a technical loophole, implying that politically the capital offers ample variety and life. But let us stick to architecture. You may be as bored as you please in Washington, but for decency's sake don't say so in public print. If this sort of thing is allowed to go on, we shall be forced to design rather than compile our buildings, and our youngsters will be frankly insisting on judging them by the effect they produce, in complete indifference to the laboriously maintained structure of rules and form.

P. S. Further on Mr. North avows, a little apologetically be it noted, that at times he reads "The Nation." He should be disabused of his idea that he is thereby getting "the radical viewpoint." If that is what is sought he should go to other sources, the most readily accessible of which is doubtless "The New Masses." Having gone so far, it is a pity his fling should stop in mid-air. And how surprised he would probably be at some of their ideas on the arts.

—I. F. M.

FITZPATRICK'S CHATTER

(Continued from page 99)

The "big name" business is quite a joke. I saw a bon mot on it the other day. Taylor, the editor of "Building" of Sydney, Australia, criticising a very miserable monument by a very well known British architect (who has done some most excellent work) naively remarks that it is a poverty stricken effort on originality, yet it seems presumptious for men of lesser artistic standing to criticise that august author, "many people would suppose that their own taste must be at fault, as this designer is an authority."

An "authority," by whose appointment?

Too many of these big names are "stuffed shirts," let me repeat, unquestionably great executives, fine job-getters, good handlers of men, clever salesmen, but are they architects?

—F. W. F.

WITH the ARCHITECTS

JOSEPH LOSEKANN, architect, has moved from the Elks building, Stockton, to the new Eden Square office building, 931 North El Dorado street, Stockton.

WILBUR D. COOK, GEORGE D. HALL and RALPH D. CORNELL, all members of the American Society of Landscape Architects, announce change of name to Cook-Hall-Cornell, with offices in the tower of the Wilshire Central building, Los Angeles.

ARTHUR R. HUTCHASON, architect, announces removal to larger offices in room 1102 in the new Architects' building, Los Angeles.

J. W. FRICKE, president of the C. F. Weber Company, has fully recovered from his recent illness and will leave shortly for Chicago to attend the various meetings of the National School Supply Association of which he is a past president and the Better Schools League of which he is a director.

CARLETON MONROE WINSLOW, architect, announces the removal of his Los Angeles office from 921 Van Nuys building to suite 1001 Architects' building, 816 West Fifth at Figueroa street, Los Angeles.

WALTER T. STEILBURG, architect, has returned from his trip abroad and is again practicing his profession in San Francisco and the Bay Region.

WM. CLEMENT AMBROSE, architect, until recently with John Reid Jr., city architect of San Francisco, announces the opening of an office for the practice of architecture in the West Coast Life building, 605 Market street, San Francisco.

CHESTER H. MILLER and HOWARD SCHROEDER, architects of Oakland, have been appointed on the board of building examiners to inspect all building equipment not already covered by building ordinances in the city of Oakland.

CHESTER A. SMITH, consulting engineer, was the principal speaker at the weekly luncheon of the Architects' League of Hollywood, December 14, his subject being "Technical Recognition and Adequate Fees."

GABLE & WYANT have moved their offices to studio No. 9, 3723 Wilshire boulevard, Los Angeles.

CHARLES C. FRYE moved January 1 from 406 Grosse building to 526 Pacific National Bank building, Los Angeles.

GEORGE WASHINGTON SMITH and Mrs. Smith of Santa Barbara left after the holidays for a sojourn in Italy.

E. ALLAN SHEET and HARRY HILLIER, R. V. I. A., have formed a new firm to be known as Sheet & Hillier, architect and engineer, to engage in the general practice of architecture. Their offices are in the Story building, Los Angeles.

GWYNN OFFICER, architect of Berkeley, has been awarded first prize for his design in the "House Beautiful" competition. The house is in the Claremont section of Berkeley. The prize was $1000. Edgar and Verna Cook Salomsky of New York were awarded second prize in the contest. Albert J. Schroeder of Pasadena was given honorable mention.

NORMAN F. MARSH & COMPANY, architects of Los Angeles, whose personnel also includes D. D. SMITH and HERBERT J. POWELL, announce the removal of their offices from 1011 Broadway Central building to 514-16 Architects' building, Fifth and Figueroa streets, Los Angeles.

L. A. PARKER, formerly located at 1105 Kerckhoff building, has moved to 804 Architects' building, Los Angeles.

E. J. BORGMEYER, formerly located at 1003 California building, has moved to 322½ South La Brea avenue, Los Angeles.

ALBERT H. LARSEN BUSY

Albert H. Larsen, architect, 447 Sutter street, San Francisco, has completed plans for a six-story steel frame and reinforced concrete apartment building to contain ninety rooms for the Lincoln Investment Company, to be erected on the southwest corner of Sixteenth avenue and Lincoln Way, San Francisco, at a cost of $180,000. Other work in Mr. Larsen's office includes the following:

Three story frame apartment building, Lombard street, west of Steiner, to cost $50,000.

Six story apartment building, California and Laguna streets, cost $350,000.

Six story Class C apartment building, Pine street, east of Hyde street, San Francisco, cost $108,000.

CITY ARCHITECT

Although still nominally City Architect, John Reid Jr., brother-in-law of Mayor Rolph, no longer will act as architectural advisor to the Board of Education and other San Francisco municipal departments, according to the San Francisco Examiner.

Reid's relinquishment of the post he has held without salary for the past decade is enforced through ill health, it was declared.

ARCHITECTS MOVE

Walter A. Hoff, landscape architect, has moved to 2555 Larkin street, San Francisco.

Eldridge T. Spencer has opened an office for the practice of architecture in the Shreve building, San Francisco.

Theodore C. Kistner has moved to 814 Architects' building, 5th and Figueroa streets, Los Angeles.

MR. HILL GIVES TALK

Andrew P. Hill Jr., former assistant superintendent of San Jose schools and now chief of the division of schoolhouse planning of the State Board of Education, addressed the Unitarian Church congregation in San Jose recently on "The Social and Artistic Obligations of the Architect."

GRANTED CERTIFICATES TO PRACTICE

The following have been granted certificates to practice architecture in this state by the State Board of Architecture: Edmond H. Denke, 1317 Hyde street, San Francisco; Wm. J. Helm, 33 Marne avenue, San Francisco; B. J. S. Cahill, Webster block, Oakland.

LOS ANGELES ARCHITECTS MOVE

John P. Krempel and Walter E. Erkes, formerly located at 538 Bradbury building, have moved to suite 415, Bank of Italy building, Los Angeles.

David J. Witmer and Loyall F. Watson, formerly located at 415 Bank of Italy building, have moved to suite 903, Architects building, Fifth and Figueroa streets, Los Angeles.

Arthur R. Hutchason, formerly located at 924 Van Nuys building, has moved to 1102 Architects building, Los Angeles.

Roland E. Coate, formerly at 1008 West 6th street, has moved to suite 701 Architects building, Fifth and Figueroa streets, Los Angeles.

Reginald D. Johnson, formerly located at 1008 West Sixth street, has moved to suite 707 Architects building.

John V. Koester has moved his offices from the Petroleum Securities building to suite 534 I. W. Hellman building, Los Angeles.

Henry Carleton Newton and Robert Dennis Murray announce the removal of their offices from 304 San Fernando building to suite 502, Architects building, Los Angeles.

Carl J. Weyl, formerly of the firm of Gogerty & Weyl, has opened an office for practice of architecture at 6536 Sunset boulevard, Los Angeles. Mr. Weyl desires catalogs and samples of building materials.

RETURNS FROM WASHINGTON

Arthur Brown Jr., has returned from a several weeks stay in Washington where he served in an advisory capacity with the Commission which is working on the Washington Plan.

While absent Mr. Brown was commissioned to prepare plans for a new Infirmary at the University of California, estimated to cost $400,000. Other work in Mr. Brown's office includes a residence for Timothy Hopkins to be built on Washington street, San Francisco, at a cost of $125,000. Mr. Brown will also be associated with Mr. Bakewell and John Baur in planning the new Olympic Club building, an eighteen-story structure to be built at Post and Mason streets. Preliminary plans have been completed and approved and President Humphreys has announced that actual construction will start this spring.

ARCHITECTS FOR NEW SCHOOLS

The following architects have been commissioned to prepare plans for new school buildings in San Francisco:

Dodge A. Reidy, building at San Jose, Seneca and Delano avenues, $100,000.

Miller and Pflueger, Class C Junior High School building, Arguello boulevard, Geary street, $400,000.

A. Appleton, second unit to South Side High School group, $250,000.

G. Albert Lansburgh two-story addition to Polytechnic High School, $125,000.

Reid Brothers, elementary school building, Marina district, $100,000.

TO DESIGN NEW THEATER

Messrs. Weeks and Day of San Francisco have been commissioned to prepare plans for a Class A theater on the south side of Seventeenth street, between Telegraph and San Pablo avenues, Oakland, for the Income Properties Company. The improvements will cost about $500,000.

LOS ANGELES BUILDING PROJECTS

Several large Los Angeles building projects have been reported by architects of that city for early consummation in 1928. These include a thirteen-story Class A store and office building for Foreman & Clark, Curlett and Beelman, architects; a three-story cafeteria building for the Schaber Cafeteria Company, Charles F. Plummer, architect, $200,000; thirteen-story apartment-hotel, Hollywood boulevard, for the Lilly-Fletcher Company, Walker and Eisen, architects, $1,000,000; Class A theater, San Bernardino, for West Coast Theatres, Inc., Balch Brothers, architects, $300,000; twelve-story Class A office building, Allison and Allison, architects, $1,250,000; thirteen-story medico-dental office building, John and Donald B. Parkinson, architects, $750,000; University building, Westwood Campus, Allison and Allison, architects, $500,000.

GRANTED CERTIFICATES TO PRACTICE

The following applicants have been granted architects' certificates by the State Board of Architecture, Southern District: Harbin F. Hunter, 728 S. Hill street; Sydney Clifton, 224 S. Olive street, and Carl J. Weyl, 320 Guaranty building, all of Los Angeles, and William J. Stone, 676 W. Mariposa street, Altadena; Arthur H. Stibolt, 570 Cahuenga avenue; Heth Wharton, 2297 West Twenty-third street, and Walter C. King, 6630 Lindenhurst avenue, all of Los Angeles; Clement B. Lewis, 1162 Paseo Del Mar, San Pedro; George A. Palliser, 1716 Union street, San Diego, and Frank C. Squiers, 1016 Tyler street, Topeka, Kansas.

STOCK EXCHANGE BUILDING

The competition for a new building for the San Francisco Stock Exchange to be erected on its property on Montgomery street, near California, San Francisco, is being participated in by the following: Arthur Brown Jr., Lewis P. Hobart, Bliss and Fairweather, Weeks and Day and Miller and Pflueger. The building is to cost $500,000 and the plans are to be submitted to the Jury of Award February third. Warren Perry is the architectural advisor.

MAXWELL G. BUGBEE, ARCHITECT

Maxwell Greene Bugbee, 62, one of the pioneer architects of San Francisco, died at the home of his son, 410 Haight street, San Francisco, Dec. 29. Mr. Bugbee's father was the late Superior Judge John S. Bugbee. Maxwell Bugbee studied architecture in his grandfather's office in San Francisco and spent four years in New York before returning to California to practice his profession. He designed many apartment buildings and homes in San Francisco and the Bay district.

CONCRETE APARTMENT BUILDING

H. C. Bauman, 251 Kearny street, San Francisco, has completed plans for a six-story reinforced concrete apartment building which the Marion Realty Company will build at O'Farrell and Leavenworth streets, San Francisco, at an estimated cost of $300,000.

A REPLY TO MR. MULLGARDT

Editor The Architect and Engineer:

Mr. Louis C. Mullgardt, in his recent comments on the A. T. A. 60th convention, struck a note that seems rather familiar to me. Indeed, there is nothing original in his assertion that "the art world is unquestionably as far in advance of the Middle Ages as the scientific and literary world." It is the unenviable privilege of some people to make such assertions. Their evident absurdity makes serious comment superfluous.

We are also informed by Mr. Mullgardt that our modern methods of construction are so immeasurably superior to those of the Middle Ages that "we could build a single building which would house all of the cathedrals of Europe, then move them in and call it the Museum of Cathedrals." More than that, "we could make it so magnificent that those edifices would look like tawdry productions in comparison." Indeed, this seems a pleasant reminder of the fact that the old Romans actually built some structures that could hold several Parthenons. Did they brag about it? Of course they did. And some of the Romans of those later Roman days no doubt believed, and tried to make others believe, that the literature of their own time was superior to that of the Classical Golden Age. Such is humanity. And there is nothing that can be done about it.

NILS HAMMARSTRAND.

New York, October 17, 1927.

TWO OAKLAND AUTO SALES BUILDINGS

Two new auto sales buildings are to be erected in Oakland immediately. One has been designed by Messrs. Powers and Ahnden, for the Earl C. Anthony Company at Harrison street and Bay place. The other is to be built on the old Franklin school site on Broadway for the Studebaker Agency. C. W. McCall is architect of the latter building. Mr. McCall is also architect for the proposed improvements which the Robert Dollar Company will make to its property adjoining the eleven-story Dollar building on California street, San Francisco.

OAKLAND ARCHITECT IN NEW OFFICES

Frederick H. Reimers has moved into attractive new studio offices in the building at 1624 Franklin street, Oakland. New work in Mr. Reimer's office includes a $40,000 model home to be built in the Claremont district, Berkeley, for the Tribune Publishing Company; a residence for Mr. Doble and a residence for Anga M. Bjornsen, the latter on Hager avenue, near Pacific avenue, Piedmont.

CONCRETE LOFT BUILDING

Henry H. Meyers, Kohl building, San Francisco, has completed plans for a three-story Class B wholesale loft building for the Langley and Michaels Drug Company. It will cover ground area 100 feet x 175 feet and will be located on the southwest corner of Castro and Ninth streets, Oakland. The cost is estimated at $150,000.

BOYS' DORMITORY

Plans have been completed by Benjamin S. Haine, Hobart building, San Francisco, for a concrete and hollow-tile dormitory for boys for the Presbyterian Orphanage and Farm at San Anselmo.

ARCHITECTURAL APPRECIATION COMMISSION

A plan originating in Santa Barbara for the formation of a national architectural appreciation commission to be supported by private subscription is being promoted by Miss Grace Gue, formerly in charge of the plans committee work of the Santa Barbara Community Arts Association. A fund of $1000 was raised to finance the preliminary work. The plans committee of the Santa Barbara association is sponsoring the movement there.

This committee has the support of the Los Angeles Chapter of the A. I. A. and Better Homes in America. This, however, is not to be construed a completed organization but does represent the nucleus from which the promoters may work most effectively. Further support has been promised by the A. I. A. Chapters in Northern California, Portland and Seattle; also the A. I. A. Regional District, headquarters in Seattle; the Allied Architects, Los Angeles; Golden Gate Museum, San Francisco; Los Angeles County Museum of Science, History and Art (research department); The Architect and Engineer and the Pacific Coast Architect.

It is proposed to carry out the following program:

1. Establish in the art museums a permanent architectural exhibit—in no sense entirely or of even major contemporary examples. Material to be renderings, plates, photographs, models and casts of details.

(a) Where permanent exhibit space may be withheld place above material in research departments substituting lantern slides for models and casts.

2. To encourage in the public schools of the United States a consideration of architecture.

(a) To supplement, if requested, the available architectural material with plates et cetera approved by the American Institute of Architects.

(b) To secure for such schools as may be accessible to architectural chapters(extension lectures on architecture.

(c) To take an interest in and encourage the work already being done in public schools toward an appreciation of architecture by:

1. Architectural criticism of plan drafting.
2. Competitions (where permitted) of plan drafting.
3. Nation-wide exhibit of best school examples of plan drafting.

WHITE HOUSE VALUE $22,000,000

President Coolidge's residence in Washington, the White House and its surrounding grounds, are valued at about $22,000,000, according to a recent estimate by Tax Assessor William P. Richards of the District of Columbia. The estimated value of the Capitol is $53,000,000 and that of the Treasury Department building is $23,000,000. Richards fixes the value of all Federal property in the district at $470,000,000.

DESIGNING NEW HOMES

F. Eugene Barton, Crocker building, San Francisco, is preparing plans for four English and Italian type dwellings to be built in the vicinity of Jackson street and Arguello boulevard, San Francisco, for W. R. Vorhees, Inc. The houses will cost approximately $25,000 each. Mr. Barton is also preparing plans for a bank and store building.

QUESTIONS FOR A COMPETENT ENGINEER TO ANSWER

Editor, The Architect and Engineer:

Since The Architect and Engineer increased its size it seems also to have become a very excellent magazine in all its departments, and extremely useful.

After the Santa Barbara earthquake a practice began to be adopted, on wood frame stucco buildings, of omitting the outside wood sheathing and using an extra heavy metal lath instead of the ordinary chicken wire used for reinforcing the cement stucco.

The new practice consists of a very well braced wood frame. Studs 16 inch o. c. On the studs a fine gage galvanized wire is strung horizontally from stud to stud, nailed every second or third stud and spaced about 8 inch o. c. vertically. This wire supports the felt paper during the placing of the first coat of plaster, giving strength enough to the paper to turn the plaster back of the lath and form a solid reinforced slab, leaving the metal lath covered on all sides with cement and protected from rusting. Over this fine wire is placed a waterproof felt paper somewhat thicker than is used over wood sheathing.

Over the felt paper the heavy metal lath is nailed with a spacing nail that keeps the metal at least ¼ inch from the stud. Sheets of lath should, of course, be well lapped and spliced together with wire.

The wall is then ready for hand or gunite plaster.

QUESTION: What kind, or rather type, of metal fabric should be used? What size of mesh and how much should the metal lath weigh per square yard for earthquake country? On what centers should the lath be nailed and with what size nails?

In expanded metal lath, though the metal lies in diagonal lines on the wall, too many secondary stresses are developed before the full tensile strength of the metal comes into play. Expanded lath must weigh more per square yard than welded wire as the strength of the expanded lath is determined by the secondary stresses.

Square welded wire mesh gives direct stresses in the metal but according to some authorities does not offer bond enough to the cement. I do not know of a diagonal mesh welded wire.

This is a new practice and eliminates ordinary plaster cracks caused by the working of wood sheathing due to temperature and moisture, under the plaster, and costs no more than the old practice of using sheathing. But it must be strong enough to withstand earthquake stresses.

Each material manufacturer claims much for his product but I do not know that the method has been investigated from an engineering standpoint.

Could you get an expert authority, an engineer, to properly investigate this matter and publish the result in the magazine? Exterior plaster is used very extensively and the information would be of value to nearly all the readers of your magazine.

Box 1067 Yours truly,
Carmel, California R. M. ESKIL.

LOS ANGELES SCHOOL GROUP

Alfred F. Priest, 719 Fay building, Los Angeles, has completed plans for a group of brick and concrete school buildings to cost $1,200,000 for the Glenwood Road High School District.

ARCHITECTURAL CRITICISM

The New York papers are chronicling the strange facts in the suit of Mr. H. Craig Severance against The New Yorker for damages in the sum of $150,000.00 because one of its editorial writers (an architect) remarked that a building of Mr. Severance's design looked more like a grain elevator than an office building. Laying aside the highly intriguing question of whether any architect in the world actually possesses $150,000.00, a decision in Mr. Severance's favor would certainly act as a damper on conversation. If any adverse criticism on one's brother architect's work were to be followed by such large monetary transactions, Bill McCarty would be left practically speechless, and the editor would have to stop saying that the sight of the Stuyvesant apartments always reminded him of sunrise in a brickyard.

"And speaking of law suits, Grand Rapids can proudly boast of being the city where, last summer, a young lady filed suit against a Detroit architect for $50,000.00 for breach of promise. This raises two vital questions in the breast of every reader—first, why should any bright girl wish to marry an architect? and second, are all architects rich except me?—Architectonics.

PURCHASING VALUE OF THE DOLLAR

The purchasing value of the dollar, as measured by living costs such as are encountered by the American wage earner and all other persons of moderate means, which includes the bulk of the population, has increased nearly 6 per cent since December, 1925, and today stands at the highest point since July, 1924, according to the National Industrial Conference Board. The dollar now, on the basis of living costs in July, the board says, is worth 61.7 cents as compared with the pre-war (1914) dollar. It was lowest in July, 1920, at the height of the post-war inflation period, when its purchasing value had shrunk to 48.9 per cent of the pre-war dollar.

NEW BRANCH OFFICES

The Detroit Steel Products Company, manufacturers of Fenestra steel windows, recently announced the opening of two new direct factory branch offices in Pittsburgh and Cleveland respectively. Harry W. Eisenhart, prominent for a number of years in the steel industry in Pittsburgh, is the manager of that office, and Sherman M. Hathaway, who has been connected with the Fenestra organization for 14 years, is at the head of the Cleveland forces.

TO DESIGN COLUMBARIUM

W. H. Hubbert, 110 Sutter street, San Francisco, has been commissioned to prepare plans for a reinforced concrete columbarium at Seattle, Washington. The structure is estimated to cost $250,000.

ADDITION TO DE YOUNG MEMORIAL

Frederick H. Meyer of San Francisco has been commissioned to prepare plans for an addition to the De Young Memorial at Golden Gate Park to replace the old Egyptian Art Palace, which is to be razed.

ADDITION TO SHELTER BUILDING

Smith O'Brien, 743 Market street, San Francisco, has been commissioned to prepare plans for a second unit to the Men's Shelter building, Natoma and Minna streets, San Francisco. The structure will cost $50,000.

The MONTH'S MAGAZINES
Edited by Irving K. Morrow - Architect

THE AMERICAN ARCHITECT
November 20, 1927

TEXT

Ammerschwihr, Kayserberg and Riquewihr. Comment and sketches by *Samuel Chamberlain.*

Some Auto-Taking Glimpses of Old Virginia's Brickborn Worthwhiles. By *W. C. Tuthill.*

A Temple of Youth. By *William Orr Ludlow.*
A Y. M. C. A. in Athens, Greece.

Self-Service in Modern Houses.

PLATES

Building for American Seating Company, Grand Rapids, Mich. *Smith, Hinchman & Grylls, Architects and Engineers.*

Building for Electric Refrigeration Corporation, Detroit, Mich. *Smith, Hinchman & Grylls, Architects and Engineers.* (3 plates).

Church of St. Theresa, Detroit, Mich. *VanLeyen, Schilling & Keough, Architects and Engineers.* (4 photographs and plan).

House, Mr. Edward D. Winslow, Fieldston, N. Y. *Dwight James Baum, Architect.*

House, Mr. Arthur Baer, St. Louis, County, Mo. *Beverly T. Nelson, Architect.*

Sales Room, L. C. Smith and Corona Typewriters, Inc., Store, New York. *Eugene Schoen, Architect.* (Photographs and working drawings).

Screens. 4 plates in supplement.

THE AMERICAN ARCHITECT
December 5, 1927

TEXT

What the Past Fifteen Years Have Taught Us in Hospital Construction and Design. By *Edward F. Stevens.*

German Municipal Architecture. By *Alfred C. Bossom.*
An account, with photographs, of the work of Fritz Schumacher at Hamburg.

Bank Interiors.

Bank Vault Construction. By *C. W. Rolff.*

PLATES

House, Mr. Frank R. Watson, Philadelphia, Pa. *Frank R. Watson, Edkins & Thompson, Architects.* (3 photographs and plans).

Milwaukee County Court House Competition. Winning design of *Albert R. Ross, Architect.*

First National Bank, Chino, Calif. *Marston, Van Pelt & Maybury, Architects.*

First National Bank, Chino, Calif. *Marston, Van Pelt & Maybury, Architects.*

American National Bank, Pomona, Calif. *Marston, Van Pelt & Maybury, Architects.*

The Southold Savings Bank, Southold, N. Y. *Francisco & Jacobus, Architects.* (Photographs, plan and details.)

Dog Kennels, Ridgefield, Conn. *Robert J. Reily, Architect.* (Photographs, plan and detail.)

Early American Doorways. 4 plates in supplement.

THE ARCHITECT
December, 1927

TEXT

Early American Architects—III; Charles Bulfinch. By *Rexford Newcomb.*
The value of these sketches of early American architects would be enhanced by illustrations of their works.

Engineers at Play. By *William L. Steele.*
Trusting and ingenuous like all artists, I could never have imagined that engineers are possessed of so perverse a sense of humor. The Producers' Council.

PLATES

Study, New Jersey Bell Telephone Building, Newark, N. J. *Voorhees, Gmelin & Walker, Architects.*

Detroit Institute of Arts, Detroit, Mich. *Paul Cret, Zantzinger, Borie & Medary, Architects.* (10 plates and plan.)

House, Dr. Randolph West, Riverdale, N. Y. *James C. Mackenzie Jr., Architect.* (3 plates and plans.)

House, Mr. Hunter McDonnell, New Rochelle, N. Y. *Hunter McDonnell, Architect.* (3 plates and plans.)

Double House, Knoxville, Tenn. *Barker & McMurry, Architects.* (2 plates and plans.)

House, Mr. Frank T. Lyons, Port Washington, N. Y. *Wesley Sherwood Bessell, Architect.* (3 plates and plans.)

St. John's Episcopal Church, Los Angeles, Calif. *Pierpont & Walter S. Davis, Architects.* (4 plates and plan.)

THE ARCHITECTURAL FORUM
December, 1927
Library and Museum Reference Number

TEXT

Library Planning. By *Edward L. Tilton.*

The Librarian's Idea of Library Design. By *Arthur E. Bostwick.*

Ventilating and Lighting Library Buildings. By *Samuel H. Ranck.*

Planning Art Museums. By *Lorimer Rich.*

A Trend in Museum Design. By *Charles G. Loring.*

Museums of Art. By *Henry W. Kent.*

Modern Museum Design. By *Meyric R. Rogers.*

PLATES

32 plates and numerous photographs and plans of recent libraries and museums throughout the United States.

THE ARCHITECTURAL RECORD
December, 1927

TEXT

Frank Lloyd Wright's Textile-Block Slab Construction. By *A. N. Rebori.*
In view of the originality and interest of Mr. Wright's designs, the information, technical and aesthetic, here given is not full enough to satisfy.

The Modern Museum—Plan and Functions. By *Richard F. Bach.*

The New Aquarium. By *Chapman Grant.*

More Ornament from Magic Squares. By *Claude Bragdon.*

Greek Architecture and the Critics. By *A. D. F. Hamlin.*
An excellent article, at once fascinating, profitable and scholarly. In every way typical of what the contents of architectural magazines habitually are not.

Simplified Practice. By *S. J. Tillman.*

Goodhue's Architecture—A Critical Estimate. By *Fiske Kimball.*
An excellent brief summary of Goodhue's activity and appraisal of its significance.

PLATES

The Edward Pinaud Factory, New York. *Buchman & Kahn, Architects.* (3 plates.)

Club House, San Clemente, Calif. *J. Wilmer Hershey, Architect; Chas. A. Hill, Associate.* (3 plates and plan.)
How make the two sides of the building go together and fit the plan?

Carthay Circle Theatre, Los Angeles, Calif. *Dwight Gibbs, Architect.* (2 plates.)

St. Ita's Church, Chicago, Ill. *Henry J. Schlacks, Architect; Henry J. Brack, Collaborator.* (6 photographs and article.)

ARCHITECTURE
December, 1927

TEXT

Our War Memorial at Montsec. Egerton Swartwout, Architect. By *Gerald K. Geerlings.*

On Becoming Intimate with Entasis.

Specifications for Water-Cement Ratio of Concrete.

The Trade Association Fills the Gap. By *Charles F. Abbott.*

Index. Volume LVI, July-December, 1927.

PLATES

Fence Posts of Old Cape Cod. (13 photographs.)

St. Andrew's Collegiate Chapel and Deanery, Philadelphia, Pa. *Zantzinger, Borie & Medary, Architects.* (5 photographs and plan.)

Parapets in Lieu of Eaves. (13 photographs and details.)

The Sherry-Netherland Hotel, New York. *Schultze & Weaver, Architects; Buchman & Kahn, Associate Architects.* (15 photographs, plans and details.)

House, Mr. Paul Rie, Port Washington, Long Island. *Clarence S. Stein, Architect.* (3 photographs and plan.)
Four Drawings of New York. By *F. V. Carpenter.*
Portfolio of Circular and Oval Windows. (45 photographs.)

JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS
December, 1927

Washington. By *Abram Garfield.*
The Washington Plan. By *Charles Moore.*
The Federal Building Program in Washington. By *Louis A. Simon.*
Present Problems of the Federal City. By *Lieutenant Colonel U. S. Grant, 3rd.*
Reflections Upon Pan-American Impressions. By *W. L. Plack.*
Cf. Third Pan-American Congress of Architects, Buenos Aires, by Kenneth Murchison; The Architect, October, 1927.
Arnold Brunner's Work Permanently Placed in Cooper Union.
Progress in Architectural Control—I. By *Charles H. Cheney.*
We may be moved to comment after seeing II.
The Bi-Centenary of John Wood of Bath.

PACIFIC COAST ARCHITECT
December, 1927
TEXT

Mary Pickford—Student of Architecture. By *Zoe A. Battu.*
A Still Hunt for the New in Lighting Fixtures. By *Zoe A. Battu.*
New Building Code for Los Angeles. By *J. W. Toms.*
Gates and Balconies.
PLATES
Spanish Houses by George Washington Smith; Harold J. Bissner; Reginald D. Johnson; Gable & Wyant; Atlee B. Ayres & Robert M. Ayres. (27 plates and plans.)

PENCIL POINTS
December, 1927

Indicating Parts of Buildings. By *Arthur L. Guptill.*
Notes on pen and ink technique.
An Architect's Hobby—The Design of Bookplates. By *Gerald Lynton Kaufman.*
Color Block Printing. By *Ernest W. Watson.*
The Villa Flaccus. By *Herbert G. Ripley.*
Testing Soil-Bearing Capacities. By *Wilford W. Beach.*
Index—Volume VIII. January-December, 1927.
Drawings in various media, including two in color.

THE WESTERN ARCHITECT
November, 1927
TEXT

The Viking Spirit in Architecture. By *Ernest O. Brostrom.*
Examples of modern Swedish architecture.
Acoustic Design of Churches. By *Dr. F. R. Watson.*
The Passing Show. By *Arthur T. North.*
See Views and Events in this number.
Color in Architecture. XI. Color in Babylonian-Assyrian Architecture. By *Rexford Newcomb.*
PLATES
House, Mr. W. A. Zumpfe, Long Beach, Ind. *John Lloyd Wright, Architect.* (7 photographs and plans.)
First National Bank, Adams, Minn. *George Elmslie, Architect; F. A. Strauel, Associate Architect.* (3 photographs and plans.)
Scottish Rite Temple, Miami, Fla. *Kiehnel & Elliot, Architects.* (3 plates, plan and section).
Newbern Hotel, Kansas City, Mo. *Ernest O. Brostrom, Architect.* (4 photographs and plan.)
A Distinctive American Architecture. No. 11 of a series suggesting how color can be utilized to secure such distinction.
Principally, one gathers on reviewing these elaborate colored double-page inserts, by employing vivid-coloring skys and shadows.

TALKED TO ENGINEERS

Chas. Derleth Jr., chief engineer for the Carquinez bridge, addressed the Sacramento Chapter, American Association of Engineers, Jan. 5 on "The Bridge Era of San Francisco Bay." Mr. Derleth is dean of the College of Civil Engineering at the University of California.

BOOK REVIEWS

By Edgar N Kierulff

SPECIFICATIONS FOR A HOSPITAL (Erected at Westchester, Pennsylvania). By York and Sawyer, Architects. Notes and comments by W. W. Beach. The Pencil Points Press. Price $6.00.

This volume has every claim to be of the utmost value to architects, contractors and construction engineers, as well as to state and county medical societies and government officials interested in the erection of modern and complete hospital units. Basement, first, second and third floor plans are shown in detail, together with photographs of special departments, such as radio, operating and laboratory units. The specifications cover every possible contingency in construction. Among the chapters one finds the following: general conditions, concrete, steel stacks, stucco, painting, plumbing, heating and ventilating, refrigeration, carpentry and millwork.

Copious notes and a well listed index complete a volume of great value and interest.

ELEMENTARY BUILDING SCIENCE—By Alfred Everett, BsC., M. I. Struct. E. Published by Oxford University Press, London; American branch, New York. Price, $2.50.

A very trite little book, written for the practitioner as well as the student, containing the physical science elements which enter into building and construction. Among the interesting chapters noted are those headed "Measuring and Weighing," "Expansion Caused by Heat," "The Effect of Oxygen and Common Acids on Certain Metals," "Hard and Soft Water," and numerous other well placed and well written chapters. The book contains excellent drawings illustrating the text.

FRENCH PROVINCIAL FURNITURE—By Henry Longnon and Francis Wilson Huard; foreword by Richardson Wright. Price $5. Published by J. B. Lippincott, Philadelphia, Pa.

A very charmingly written book which captivates the reader, particularly if he be a lover of fine interiors and worthwhile old furniture.

Contains seventy-one excellent illustrations. The arrangement of text and pictures is very good and this volume should prove of interest and value to the collector as well as to the architect.

GLORIES OF THE CATHOLIC CHURCH IN ART, ARCHITECTURE AND HISTORY—Edited by Maurice Francis Egan, A.M., L.L.D. Published by D. H. McBride & Co., Chicago, Ill.

A splendidly arranged symposium of cathedral history and architecture, containing two hundred fifty-six excellent photographs.

This volume should be of value to the departments of architecture in American universities, particularly in reference work in the history of cathedral architecture.

SOCIETY and CLUB MEETINGS

LOS ANGELES CHAPTER, A. I. A.

Pierpont Davis has been elected president of Southern California Chapter, American Institute of Architects, to serve during 1928. Edgar H. Cline is the new vice-president; A. E. Nibecker Jr., secretary; Fitch H. Haskell, treasurer, and William Richards, director for a term of three years. Announcement of the result of the letter ballot for officers was made at the regular meeting of the Chapter, held at the University Club, Tuesday evening, December 13. Installation of the new officers took place at the January meeting.

The following are the delegates to the national convention of the Institute to be held in St. Louis, Mo., May 13: Reginald D. Johnson, Fitch H. Haskell, David Witmer, W. L. Risley, Sumner Spaulding, William Richards and A. M. Edelman. Alternates selected are: Stiles O. Clements, Carleton M. Winslow, Roy Kelly, Alfred Rea, George Washington Smith, Eugene Weston and C. R. Johnson.

Ken Nakasawa, Japanese lecturer, who has been in this country for some months, speaking at various Pacific Coast universities, gave an interesting talk on Japanese and Chinese architecture and customs, illustrated with lantern slides.

Horatio Cogswell, vice-president of the Artland Club, told of the plans of that organization and the work which it is endeavoring to do for the advancement of the various arts.

Guests at the meeting included Harris Allen, president Northern California Chapter and Robert Peters, lay member of the Rift Club, composed of geologists and seismologists.

A report of a special committee, of which J. E. Allison is chairman, recommending that the Chapter sever its connection with the Construction Industries Council of Southern California, but extending to the council "our moral support and best wishes for its success," was adopted. The matter of appointment of a contact committee to co-operate with the Council was deferred until the Chapter had heard further from the Council.

WASHINGTON STATE CHAPTER, A. I. A.

The 331st regular meeting of the Washington State Chapter was held at the College Club, Seattle, Thursday evening, December 1, preceded by the usual dinner.

During the dinner, there was an informal discussion of the proposed city water tower at Woodland Park, which gradually faded into a discussion of modern art in general and of the exhibition of the Seattle Fine Arts Society gallery in particular. There was an interesting discussion of one of the pictures, "Gold Fish in a Bowl."

After the dinner, the business meeting was called to order by the president, with the statement that as this was the last business meeting of his administration, it would be entirely informal, a familiar gathering together to finish up the year.

The minutes of the three preceding meetings were read and approved. Mr. Albertson, the chairman of the committee authorized at the last meeting for the purpose of securing a general committee to further city planning activities in Seattle, reported a list of organizations from which the members of this general committee were to be chosen, and outlined, in a general way, its proposed organization and purpose. Mr. Albertson also reported for the nominating committee the following nominations for officers for the year 1928, to be voted on at the annual meeting:

For president—Sherwood D. Ford.
For first vice-president—F. A. Naramore.
For second vice-president—Herbert A. Bell.
For third vice-president—G. Albin Pehrson.
For secretary—J. Lister Holmes.
For treasurer—A. M. Allen.
For executive committee (three years)—Clyde Grainger.

A request from Mr. Morse, the city engineer in Seattle, was presented, asking for architectural assistance in housing the water tank at Woodland Park. This was turned over to the committee on civic design and it was reported that Mr. Myers, chairman of this committee, had obtained the necessary data and preliminary work had already been undertaken.

Mr. Jones, reporting as chairman of the exhibition committee, stated that the exhibition, after being held in Seattle, was transferred to Tacoma, and from there to Portland, and that eastern work in the exhibition had finally been sent to Eugene, Oregon. This seemed to suggest an exhibition circuit, which might be worked out for the Northwest, helping to keep the work of the architects before the public.

At the conclusion of this necessary business, the discussion which followed finally drifted around to publicity, a subject that reminds one of the man who sheared the pig—produces a huge cry but little wool. Progress appeared to be made in this instance by a vote of the Chapter to hold a special meeting in the near future, to hear and discuss a definite proposition which had been presented to the executive committee.

ANNUAL MEETING LANDSCAPE ARCHITECTS

The annual meeting of the Pacific Coast Chapter of the American Society of Landscape Architects was held in Los Angeles, December 22, with a full attendance of members present. The officers and executive committee who have served the chapter during 1927 were unanimously re-elected for 1928, as follows:

President, Stephen Child, San Francisco; vice-president, Emanuel T. Mische, Los Angeles; secretary, John W. Gregg, Berkeley; treasurer, Edward Huntsman-Trout, Los Angeles.

Among matters of importance which were discussed was the appointment of a committee to arrange for the annual exhibition of the chapter to be held sometime during the month of February in Los Angeles, and if satisfactory arrangements can be made, the exhibition will be later transferred to San Francisco for display.

The meeting on the Pacific Coast in May of the National Conference on State Parks was discussed, and a committee appointed to extend the courtesies of the chapter to this organization in whatever way may be possible, and assist in making the annual meeting pleasant and profitable for those present and for the state of California as a whole.

S. F. ARCHITECTURAL CLUB NOTES

At the semi-annual meeting of the San Francisco Architectural Club, held Wednesday evening, January 4, the following officers were elected: President, Lawrence H. Keyser; vice-president, Harry Langley; secretary, Russell B. Coleman; director, Theo. G. Ruegg. These men have all served the club in many and various capacities in the past. Russell Coleman has been reelected to the office of secretary on the strength of his indefatigable work the past year.

The retiring president, Howard E. Burnett, was presented with a beautiful watch charm as a token of esteem and appreciation. In response to its presentation by Al Williams, Mr. Burnett briefly reviewed the year's activities of the club, dismissed the committees that had carried on the various events under his direction and particularly praised the work of the committee on education, headed by Robert Nordin and the entertainment committee of which Ira Springer was chairman.

The installation of the new officers was carried out with much pomp and ceremony. Messrs. Springer and Raynaud performed their duties with spice and pep; cleverly worded witty pledges were sworn to by each officer in turn and altogether some interesting things will happen when they are all carried out.

Speeches were called for and President Keyser responded with a brief resume of the needs of the club and an outline of the work he hopes to accomplish. The keynote of his address was co-operation, and wholehearted co-operation will certainly assure a successful administration.

Each of the successful candidates was then given an opportunity to brush up his platform and spike down his planks.

Besides President Burnett the only real retiring member of the past regime is faithful "Art" Jannsen who leaves a splendid record as a director and the result of his latest achievement will be seen when the new sign at the club entrance is unveiled.

The following classes are being conducted under supervision of the S. F. A. C.:

ARCHITECTURAL DESIGN
(System of the Beaux Arts Institute of Design followed and programs issued regularly).
E. E. Weihe and Edw. L. Frick, patrons.

THE CLASSIC ORDERS
James M. Magee, instructor.

STRUCTURAL ENGINEERING
C. J. Sly, instructor.

WATER COLOR RENDERING
M. DeGastyne, instructor.

DETAILS OF CONSTRUCTION
Al. Williams, instructor.

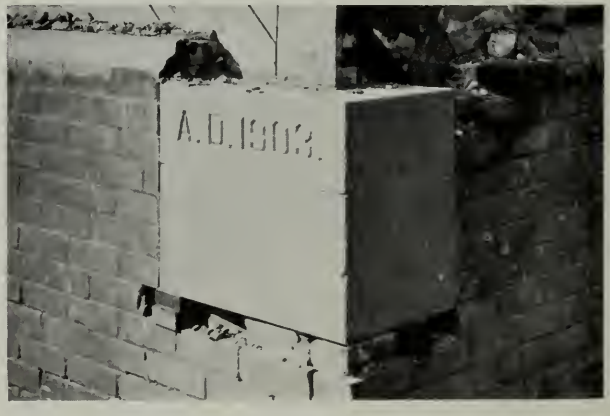
WEEKLY LUNCHEON MEETINGS

The Architects' League of Hollywood now holds its regular Wednesday luncheon meetings at the Mary Ellen tea room in Architects Goggerty & Weyl's interesting court

DURABILITY OF BRICK VENEER

The durability of face brick veneer in frame construction is illustrated by the accompanying photographs of the Westminster Presbyterian Church in Sacramento, in process of being razed to make way for an advancing business district. No building paper was used between brick and sheathing as is the practice today. Large spikes anchored the brick to the wood frame and the spikes showed no rust or deterioration in the 24 years since the corner stone was laid. No dry rot could be found whatever. Only in two small spots about one foot in extent was the sheathing damaged from moisture that leaked through—one at the eaves and the other at the base of a mitered corner in the brick work where the brick were not bonded and the vertical mortar joint spalled out. The photographs and data are furnished by Cannon & Co., of Sacramento.

BRICK VENEER CHURCH, SACRAMENTO, IN PROCESS OF DEMOLITION, SHOWING WOOD FRAME IN PERFECT CONDITION



CORNER STONE SHOWS DATE CHURCH WAS ERECTED. WOOD FRAME BACK OF BRICK VENEER IN FINE STATE OF PRESERVATION

GRAVEL COMPANY MOVES

Coast Rock and Gravel Company has moved its general offices from the Call building to the Hunter-Dulin building, 111 Sutter street, San Francisco. This company is one of the pioneers in the distribution of rock and gravel in Central California and today its management is giving statewide service. Concrete aggregates for some of the largest and finest buildings on the Pacific Coast have been furnished from the numerous plants of this company.

CONTRACTORS' LICENSE LAW

An ordinance providing for the licensing of building contractors in the city of San Diego became effective December 22. The ordinance was drafted and sponsored by Oscar Knecht, chief building inspector of San Diego. It provides that every building contractor undertaking any work costing in excess of $200 shall file a surety company bond with the city license department and secure a license. The fee for the license is $10 per annum payable on January 2 of each year.

Class A contractors will be required to file a bond for $10,000; Class B contractors a bond for $5000, Class C contractors a bond for $2500 and Class D a bond for $1000. An owner damaged by failure of the contractor to comply with city building regulations may sue on the bond.

The ordinance does not prohibit an owner from doing his own building and it does not apply to an unlicensed person working directly for or under the supervision of a licensed contractor or an owner. Penalty for violation of the ordinance is fine of $10 to $500 or imprisonment in jail for 10 days to six months, or both; each day of such violation to be considered a separate offense.

Following are provisions of the ordinance classifying contractors:

"CLASS A. Building contractors engaged in the business of erecting, constructing, remodeling, altering or repairing buildings of any or unlimited cost or valuation and all buildings or structures of a public nature as herein defined of any cost or valuation.

"Building or structures of a public nature contemplated by this classification shall include theaters, meeting rooms and lodge rooms designed to seat more than one hundred (100 people at one time, office buildings of four (4) stories or more, hotels, apartment houses of twelve (12) or more apartments, grandstands and other structures for the seating and accommodation of the public, school buildings, churches and all buildings and structures designed for the purpose of the congregation of one hundred (100) people or more at any one time.

"Class A building contractors shall furnish a penal bond in the sum of ten thousand dollars($10,000).

"CLASS B. Building contractors engaged in the business of erecting, constructing, remodeling, altering or repairing buildings of any or unlimited cost or valuation, except buildings of a public nature as defined in the foregoing paragraph with reference to Class A contractors.

"Class B building contractors shall furnish a penal surety bond in the sum of five thousand dollars ($5,000).

"Class B building contractors shall not engaged in or perform any contract for the remodeling, altering or repairing of any building or structure of a public nature as heretofore defined.

"CLASS C. Building contractors engaged in the business of erecting or constructing buildings not exceeding a total cost or valuation of fifteen thousand dollars ($15,000) each.

"Class C building contractors shall not engage in or perform any contract for the remodeling, altering or repairing of any building when the cost or valuation of such work exceeds fifteen thousand dollars ($15,000), or of any building or structure of a public nature as defined in connection with Class A contractors.

"Class C building contractors shall furnish a penal surety bond in the sum of twenty-five hundred dollars ($2500).

"CLASS D. Building contractors engaged in the business of erecting or constructing buildings not exceeding a total cost or valuation of five thousand dollars ($5000) each.

"Class D building contractors shall not engage in or perform any contract for the remodeling, altering or repairing of any building when the cost or valuation of such work exceeds five thousand dollars ($5000), or of any building or structure of a public nature as described in connection with Class A contractors.

"Class D building contractors shall furnish a penal surety bond in the sum of one thousand dollars ($1000).

RARE ANTIQUE SHIP MODEL

The collector of antique ship models has an opportunity to possess one at a very moderate price (if he gets busy right away). The model may be seen for a limited time at the Hamilton Studios, 646 Taylor street, San Francisco. Authentic antique ship models, by the way, are becoming scarcer every day due to the growing interest of collectors who are offering fabulous prices in some instances for the rarer antiques. The model at the Hamilton Studios is called "America" and is a beautifully wrought ship, standing eight feet high over all, with every spar, halyard and tackle perfect in detail and proportion.

"AMERICA," A SHIP MODEL OF PERFECT DETAIL

History tells us that in the back room of an old building in Crockett, California, there were found two old ship models, the smaller one of which is the "America." Both are reminders of the boom days of that historic little town which became famous as a port for clipper ships that carried wheat to England.

Old residents recall that it was the practice of sailors "coming 'round the horn" in the days of the clipper ship to build a replica of their craft, and upon arrival in port it would be traded with the proprietor of a sailors' retreat for entertainment and refreshment while in port.

OPENS LOS ANGELES BRANCH

The Simonds Machinery Company of San Francisco which has enjoyed a steady growth since its establishment in December, 1907, commemorated its twentieth anniversary the first of last month by opening a Los Angeles branch at 520-522 East Fourth street.

Among other factories represented by the Simonds Machinery Company in Los Angeles is the American Steam Pump Company, Battle Creek, Mich., manufacturers of "American-Marsh" steam pumps, both simplex and duplex, centrifugal pumps of all types, also air compressors; the Dayton Air Compressor Company,

Dayton, Ohio, manufacturers of air compressors for garage and other work, and also for paint spraying; the Deming Company, Salem, Ohio, for fifty years manufacturers of high grade pumping machinery; Kewanee Private Utilities Company, Kewanee, Ill., originators of the first hydro-pneumatic system in use in the United States, under the name of the Kewanee System.

In addition to selling pumps and air compressors for large buildings, hospitals, and industrial plants, the Simonds Machinery Company is the agent for the Lucas sprinkler set, accepted by the Fire Underwriters for automatic sprinkler equipment.

Prior to establishing this branch house in Los Angeles, the Simonds Machinery Company enjoyed a good volume of Southern California business handled through the San Francisco office, but realized that they could much better handle their trade with a branch and a good sized stock of pumps and compressors on hand at all times in Los Angeles. It is the intention there, as at San Francisco, to have in their office personnel hydraulic engineers with both theoretical and practical experience in recommending and specifying the proper equipment for the purpose.

ENGINEERS CLUB OF LOS ANGELES

The December meeting of the Los Angeles Engineers Club, in the form of a holiday party, was held at the City club on Thursday evening, December 15. About three hundred members and guests attended.

Sam Gates, the newly-elected president of the Engineers club, presided. Community singing and the introduction of guests followed the dinner.

The speaker of the evening was Judge Leonard Wilson of Division Five of the Municipal Court of Los Angeles, who told of some of the problems of our local courts and police department, emphasizing the fact that, considering its great area, Los Angeles has a relatively small police force, which must of necessity be highly efficient to render the amount of protection to lives and property which the citizens of Los Angeles receive.

Several fine violin numbers were played by Miss Betty Travis, accompanied by her mother, Mrs. Ivy May Travis, on the piano. Mr. Jack Carter, monologist, also entertained the engineers with a number of humorous readings.

Mr. Thaddeus E. White, who has spent twenty-three years in China in connection with coal mining, spoke briefly on some of the court practice of China.

President Gates outlined the progress of the Engineers club up to date, and announced that enough subscriptions had been pledged toward underwriting the housing plan to justify the directors of the club to proceed with leasing the space and ordering the alterations and the furnishing of the quarters. E. L. Mayberry, chairman of the housing committee, described the quarters which are contemplated and submitted a floor plan and a painting of the lounge as it will appear when completely furnished.

AMERICAN PLAN ARCHITECTS

Following the lead of many San Francisco architects the Society of Architects of Alameda County has endorsed the American Plan of employment as defined by the East Bay Industrial Association, in formal resolutions adopted in the society's regular November meeting.

Chester Miller, who presented the resolution and presided at the meeting which was held November 7th, explained that it had been drawn up after a careful survey and check with industrial concerns in the East Bay district.

Leading architects on both sides of the bay are whole-heartedly committed to the American Plan and have been potent factors in making it a success. They have seen the results of it in lowered costs to their clients and stimulated construction throughout the whole bay district since the plan was introduced in 1921.—American Plan Bulletin.

NEW HARDWOOD COMPANY

The G. H. Brown Hardwood Company announces the opening of its new plant at 47th avenue and East 12th street, Oakland. The company has leased the western section of the building formerly occupied by the Westgate Metal Products company, consisting of fire-proof warehouse with floor space of 50,000 feet, and a yard capacity of forty-five carloads, with direct spur tracks.

The president of the new company, G. H. Brown, was the founder and former president of the Strable Hardwood Company of Oakland, and is one of the best known men in the hardwood business in California, with a record of twenty years continuous operation in Oakland, having founded the Brown-King company in 1907, the predecessor of the Strable Hardwood Company. Mr. Brown has been in the hardwood business practically all his life, starting as a boy in New York City tallying lumber on the docks, and completing his early training at Saginaw, Michigan.

The new company will handle a general line of hardwood lumber, making a specialty of straight and mixed carload shipments from the Eastern, Middle Western and Southern states, and will also import direct from Australia. The company will specialize in kiln dried stock, also a large diversified stock of all hardwoods, air dried. Their services will include mill-work, special dimension stock, and particularly direct carload shipments to customers from the company's eastern connections.

OFFICERS FOR 1928

Following are the new officers of the Washington State Society of Architects: President, Wm. J. Jones, Seattle; first vice-president, R. C. Stanley, Seattle; second vice-president, Julius A. Zittel, Spokane; third vice-president, Stanley A. Smith, Pullman; fourth vice-president, Martin Klein, Kelso; secretary, O. F. Nelson, Seattle; treasurer, H. G. Hammond, Seattle; trustees, Theobold Buchinger, Seattle; H. G. Hammond, Seattle; T. F. Doan, Bellingham; H. H. James, Seattle.

BERKELEY ARCHITECT BUSY

New work in the office of B. Reed Hardman, architect in the First National Bank building, Berkeley, includes a three-story and basement store and apartment building on Fruitvale avenue, Oakland, for James Foster, to cost $50,000; an apartment building for Ray Blanco in East Oakland, to cost $70,000; an addition to a Berkeley garage to cost $12,000, and several minor alteration jobs.

Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

The wage scale is that in effect January 1, 1928, for a period of one year. Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
Common, $32.00 per 1000 laid.
Face, $70.00 per 1000 laid.
Brick Steps, using pressed brick, $1.10 lin. ft.
Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
Brick Veneer on frame buildings, 70c sq. ft.
Enamel, $105.00 per 1000, f.o.b. cars.
Common, f.o.b. cars, $11.50, plus cartage.
Face, f.o.b. cars, $48.00 per 1000, carload lots.

HOLLOW TILE PIREPROOFING (f. o. b. cars in carload lots).

12x12x3 in.	$ 90.00 per M
12x12x4 in.	100.00 per M
12x12x6 in.	145.00 per M
12x12x8 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f. o. b. cars in carload lots).

8½x12x5½	$100.00
6 x12x5	74.00

Hod carriers, $7.00 per day.
Bricklayers, $11.00 per day.

Composition Floors — 18c to 50c per sq. ft. In large quantities, 18c per sq. ft. laid.
Rubber Tile—70c per sq. ft.

Terazzo Floors—60c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.30 per ton
No. 4 rock, at bunkers	1.30 per ton
Niles pea gravel, at bnkrs.	2.70 per ton
Washed gravel, at bnkrs.	1.40 per ton
Niles top gravel, at bnkrs.	1.50 per ton
City gravel, at bunkers	1.30 per ton
River sand, at bunkers	1.15 per ton
Delivered bank sand	1.00 cu. yd.

SAND
Del Monte, $1.75 to $3.00 per ton.
Fan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
Belgian cement, $2.30 per bbl.
Cement, $2.51 per bbl. in paper sks.
Cement (f.o.b. Job, S.F.), $2.71 per bbl.
Cement (f.o.b. Job, Oak.), $2.71 per bbl.
Rebate of 10 cents bbl. Cash in 15 days.
Atlas "White" .....$ 8.75 per bbl.
Forms, Labors average 25.00 per M
Average cost of concrete in place, exclusive of forms, 30c per cu. ft.
4-inch concrete basement floor.....13c to 14c per sq. ft.
4½-inch concrete basement floor.....14c to 15c per sq. ft.
2-inch rat-proofing....6½c per sq. ft.
Concrete Steps.....$1.26 per lin. ft.
Wage—
Concrete workers .....$5.50 per day
Cement finishers ..... 9.00 per day
Laborers ..... 5.00 per day

Dampproofing—
Two-coat work, 20c per yard.
Membrane waterproofing—4 layers of P.B. saturated felt, $4.50 per square.
Hot coating work, $2.00 per square.
Wage—Roofers, $8.00 per day.

Electric Wiring—$3.00 to $9.00 per outlet for conduit work (including switches).
Knob and tube average $2.25 to $5.00 per outlet, including switches.
Wage—Electricians, $9.00 per day; fixture hangers, $8.00 per day.

Elevators—
Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
Sand, 60 cents; clay or shale, $1.25 per yard.
Teams, $10.00 per day.
Trucks, $21 to $27.50 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
Ten-foot balcony, with stairs, $100.00 per balcony.

Glass (consult with manufacturers)—
Double strength window glass, 15c per square foot.
Quartz Lite, 50c per square foot.
Plate, 80c per square foot.
Art, $1.00 up per square foot.
Wire (for skylights), 25c per square foot.
Obscure glass, 25c per square foot.
Note—Add extra for setting.
Wage—Glaziers, $8.00 per day.

Heating—
Average, $1.80 per sq. ft. of radiation, according to conditions.
Wage—Steamfitters, $9.50 per day.

Iron — Cost of ornamental iron, cast iron, etc., depends on designs.
Wage — Iron workers, bridge and structural, $11.00 per day.
Architectural iron workers, $9.00 per day.

Lumber (prices delivered to bldg. site)
Common, $24.00 per M (average).
Common O.P. select, average, $31.00 per M.

1 x 6 No. 3—Form lumber	$19.00 per M
1 x 4 No. 1 flooring	50.00 per M
1 x 4 No. 2 flooring	49.00 per M
1 x 4 No. 3 flooring	35.00 per M
1 x 6 No. 2 and better flooring	45.00 per M
1¼ x 4 and 6 No. 2 flooring	53.00 per M

Slash grain—

1 x 4 No. 2 flooring	38.00 per M
1 x 4 No. 3 flooring	36.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90c per bdle.

Hardwood Flooring (delivered to building)—
$\frac{13}{16}$x3¼" T & G Maple.....$135.00 M ft.
$1\frac{1}{16}$x2¼" T & G Maple..... 145.50 M ft.
⅞x3½ sq. edge Maple.....132.50 M ft.

	$\frac{13}{16}$x2¼" T&G	⅜x2" T&G	$\frac{1}{16}$x2" Sq. Ed.
Clr. Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel. Qtd. Oak	150.00 M	122.00 M	131 M
Clr. Pla. Oak	155.00 M	110.00 M	113 M
Sel. Pla. Oak	132.00 M	79.00 M	97 M
Clear Maple	147.00 M	101.00 M	

Laying & Finishing 16c ft. 15c ft. 13c ft.
Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$4.20
2 ply per 1000 ft. roll	6.30
3 ply per 1000 ft. roll	9.60
Sash cord com. No. 7	$ 1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	60.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $110 per 1000.
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel), $7.50 and up, each.
Doors, including trim (five panel), $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $6 each.

Dining room cases, $7.50 per lineal foot.
Labor — Rough carpentry, warehouse heavy framing (average), $12 per M.
For smaller work, average, $25 to $32 per 1000.
Wage—Carpenters, $9.00 per day.
Laborers—$5.50 per day.

Marble—(Not set), add 40c to 60c per ft. for settling.

Alaska	$1.15 sq. ft.
Columbia	1.15 sq. ft.
Pink Lepanto	1.40 sq. ft.
Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.

Floor Tile — Set on any of above except Verde Antique $1.10 sq. ft.

Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.
Hauteville	2.25 sq. ft.
French Grey	1.40 sq. ft.

Wages — Marble setters, $9.50 per day; helpers, $6.50 per day; marble polishers and finishers, $7.00 per day.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard

Turpentine, 88c per gal. in cans and 73c per gal. in drums.
Raw Linseed Oil....89c gal. in bbls.
Boiled Linseed Oil ....92c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per Lb.
1 ton lots, 100 lbs. net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13¼c
500 lb. and less than 1 ton lots	13½c
Less than 500 lb. lots	14c

Wage—Painters, $9.00 per day.
Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14″ long (average), $6.00 each.

Plastering—Interior—

1 coat, brown mortar only, wood lath	$0.43 yd.
2 coats, lime mortar hard finish, wood lath	.55 yd.
2 coats, hard wall plaster, wood lath	.60 yd.
3 coats, metal lath and plaster	1.10 yd.
Keene cement on metal lath	1.23 yd.
Ceilings with ¾ hot roll channels metal lath	.79 yd.
Ceilings with ¾ hot roll channels metal lath plastered	1.63 yd.
Single partition ¾ channel lath 1 side	.74 yd.
Single partition ¾ channel lath 2 sides 2 inches thick	2.62 yd.
4-inch double partition ¾ channel lath 2 sides	1.42 yd.
4-inch double partition ¾ channel lath 2 sides plastered	2.94 yd.

Plastering—Exterior—

2 coats cement finish, brick or concrete wall	1.03 yd.
2 coats Atlas cement, brick or concrete wall	1.28 yd.
3 coats cement finish No. 18 gauge wire mesh	1.80 yd.
3 coats Atlas finish No. 18 gauge wire mesh	2.08 yd.

Wood lath, $4.00 per 1000.

2.5 lb. metal lath (dipped)	.20 yd.
2.5 lb. metal lath (galvanized)	.24 yd.
3.4 lb. metal lath (dipped)	.26 yd.
3.4 lb. metal lath (galvanized)	.30 yd.

¾-inch hot roll channels, $76 per ton.
Hardwall plaster, $15.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $16.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15.
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.
Wages—Plasterers, $11 to $12 per day.
Wages—Lathers, $8.50 to $9 per day.
Wages—Hodcarriers, $7.50 to $8 per day.

Composition Stucco—$1.60 to $2.00 per sq. yard (applied).

Plumbing—
From $58.00 per fixture up, according to grade, quantity and runs.
Wage—Plumbers, $9.50 per day.

Roofing—
Five-ply tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $26.00 to $40.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Pabco, 10-yr. roof, $8.50 per sq.
Pabco, 20 year, roof, $11.50 per sq.
Recoat, with Gravel, $3.00 per sq.
Wage—Roofers, $8.00 per day.

Sheet Metal—
Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—
Copper, $1.25 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).
Wage—Sheet metal workers, $9.00 per day.

Stone—
Granite, average, $6.00 sq. ft. in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.
Wage—Stone cutters, $8.50 per day Stone setters, $9.00 per day.

Store Fronts—
Copper sash bars for store fronts, corner, center and around sides, will average 70c per lineal foot.
Note—Consult with agents.

Steel Structural—$92.50 per ton (erected) This quotation is an average for comparatively small quantities.
Light truss work higher; plain beam and column work in large quantities. less.
Cost of steel for average building (erected), $90 per ton.

Reinforcing—
Base price for car load lots, $2.80 per 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.
Wage—Housesmiths, $9.00 per day.

Steel Sash—
All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 80c per foot, laid.
White floor, 80c per foot, laid.
Colored floor tile, $1.00 per ft., laid.
Promenade tile, 80c per sq. ft., laid.
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Announcement of a

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The ARCHITECT & ENGINEER will make definite announcement in its February number of location and management of a Los Angeles office. Negotiations are now pending for suitable quarters in the new Architects' Building at Fifth and Figueroa Streets.

A Cry That Has Echoed Through the Ages

The cry of the leper — outcast, unclean! A soul-wracking, melancholy cry that has resounded in the halls of time since Egypt was young and the pyramids were but a dream.

"If Thou wilt Thou canst make us clean," pleaded the lepers when the Man of Galilee walked among them nearly 2,000 years ago. And in His great compassion He laid His hands upon them and gave them comfort.

But even in this advanced age the agonized cry of the leper is raised, unheard, lost on the winds of the sea and stifled by the loneliness of far-off islands where millions of lepers this very hour are living a walking, breathing death. Actually, millions there are — men, women and helpless little children who never should feel the hand of reprosy. Thousands of these are under the American flag in the world's greatest leper colony at Culion in the Philippines.

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"If Thou wilt Thou canst make us clean." Yes, the same old prayer, but this time it is addressed not to the Man of Galilee but to You. You can help rid the world of Leprosy—Stamp it Out for all time—by simply sending your check to aid the heroic men and women who have buried themselves among the lepers and are devoting their lives to this great task.

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FEBRUARY 1928

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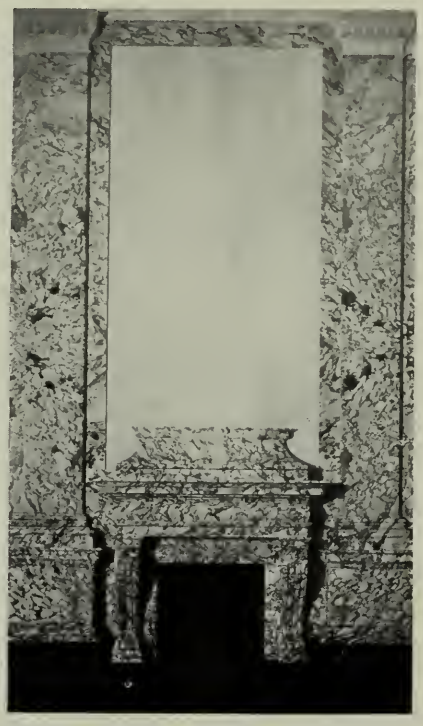
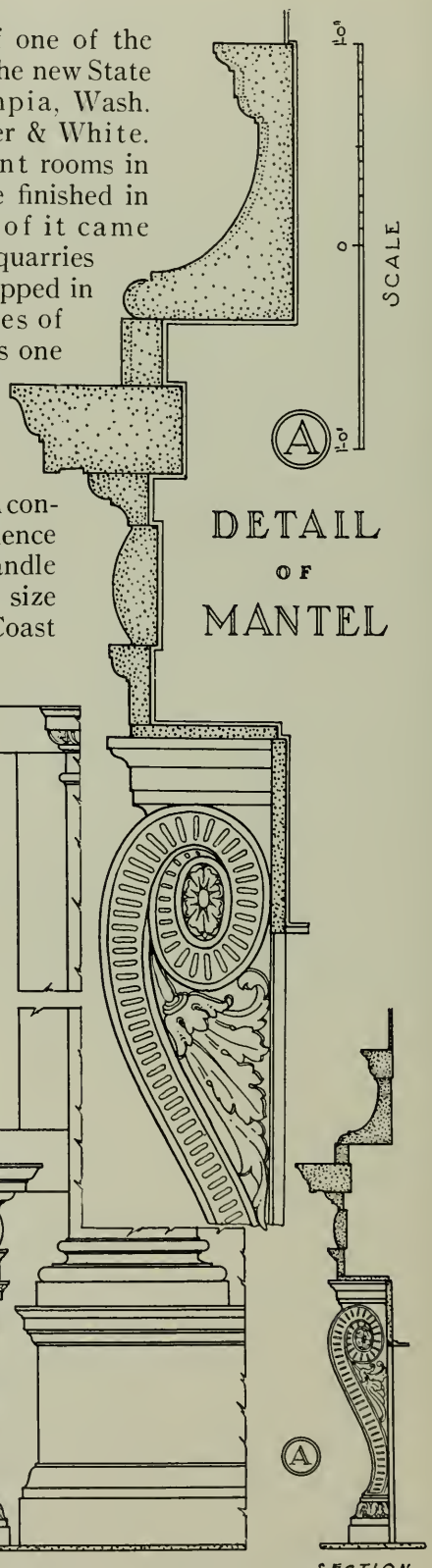


DETAILS of one of the mantels in the new State Capitol at Olympia, Wash. Architects, Wilder & White. All the important rooms in this structure are finished in marble. Much of it came from our Alaska quarries and some was shipped in from the quarries of Europe. This was one of the largest interior marble contracts in the country and its completion within contract time is evidence of our ability to handle contracts of any size with our West Coast plants.



VERMONT MARBLE COMPANY

244 BRANNAN ST.
San Francisco

EAST END 11TH ST. BRIDGE
Tacoma

606 ROOSEVELT BLDG.
Los Angeles

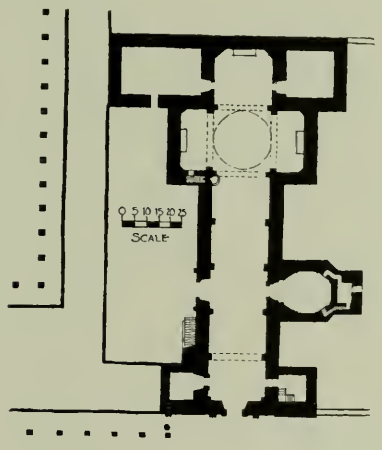
ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

PUBLISHED 1883

No. 2—San Luis Rey de Francia

The Mission dedicated to Saint Louis, King of France, was established June 13, 1798. *It lies in a pleasant valley several miles in from Oceanside, between San Diego and Los Angeles. Except for the disappearance of some structures at the extreme left, the Mission stands practically as shown in Ford's etching of* 1883. *The church has undergone restoration. The finely-conceived baroque curves of the gable end and adjoining cemetery wall have exerted considerable influence on modern "mission" architecture in California.*



MISSION SAN LUIS REY DE FRANCIA, OCEANSIDE, CALIFORNIA
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER
February, 1928

The ARCHITECT AND ENGINEER

OL. 92 FEBRUARY, 1928 No. 2

The SANTA BARBARA BILTMORE

By Fred'k W Jones

THE Santa Barbara Biltmore is a beautiful dream come true. Fashioned after the style of a grandee's palace, and furnished in keeping, ith a setting of surpassing beauty, the newest California hotels possesses all the atmosnere of a private home. It is difficult to grasp ie majesty and charm of the ensemble in a ngle view. The many pleasing corners, the ainty furnishings and thoughtful care in small details cannot be absorbed in a passing survey. One must linger and time will repay with new and fascinating surprises.

Reginald D. Johnson, the architect, has chosen the pure Spanish type of architecture as best suited to fit into the landscape and the pictures tell how successful his efforts have been to that end. The hotel group is surrounded by twenty-one acres of marvelous oaks, eucalyptus and bamboo trees and from any of its win-

BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
Reginald D. Johnson, Architect

dows one may enjoy a marvelous view of ocean and countryside. The group is broken by low towers, ells, patios and porticos. Behind this is another building graced with a round tower circled by an exterior stairway, and facing a large dining patio sheltered by colorful awnings and a vine-covered ramada.

Tile color panels, depicting scenes of the early days in Santa Barbara, and set into the cement walls, both in the patio, the communicating archway, and in the main halls of the ground floor, lend an unusual decorative feature that is balanced by the attractive tile dado in the main halls and on the stair risers.

Supporting bungalows and a two-story building are at the west end of the main house, their red roofs, green blinds and wrought iron balconies blending into the velvety lawns in a most attractive manner.

The graveled driveway, divided at its entrance by a noble tree, leads up to a brick-paved court at the main entrance, where massive doors of weathered and carved oak are supplemented by an inner door of old iron and glass.

The doors to all the public rooms are hand made. Massive and beautiful, with especially designed hardware, they are worthy of the lovely building of which they are a part.

A unique feature is the many art metal wall and ceiling lighting fixtures that were fabricated in Spain especially for the Santa Barbara Biltmore. They thoroughly accent the Spanish motif of the entire building. These fixtures are used also on the outside stairways, of which there are several; in the high-arched passages through the buildings into the patio, and in other unexpected places.

TUNNEL, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
Reginald D. Johnson, Architect

A woven and filigreed iron salamander graces a brick foundation in the interior garden, for a cheery bonfire at night; a tile-bordered fountain, flooded with brilliant lights, plashes up through a copper-petaled flower in the ocean-front plaza; a colorful poster of a Madrid bull fight, varnished to withstand the elements, graces one of the dead walls between the two main buildings; chimney pots, round, square and crenelated, top the many fireplace vents; outside drapes in the Iberian style hang from

any of the windows and loggias; tile pictures epicting the history of the Santa Barbara hannel by Cabrillo, the map of the ancient ty, the Biltmore galleon, and gay senoritas nd caballeros, are unexpectedly in evidence in nusual places.

The hand-made tiles on the roofs flow downard in wavy lines, and shade from light tints the ridge to dark and weathered colors at ne eaves. Wrought iron weather vanes repreenting high-pooped and castellated galleons, appeal hang in all the rooms; red and golden lacquered bedroom sets enliven the rooms, some of them especially carved and decorated, with writing desks and dressing tables of contrasting woods.

Wrought floor lamps, gaily upholstered easy chairs and stationery sets carrying the Santa Barbara Biltmore's adopted Spanish galleon design in colors, make up some of the distinctive room furnishings.

The bathrooms are floored with light yellow

ENTRANCE DETAIL, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
Reginald D. Johnson, Architect

nd cupped wind wheels, swing into the breeze rom the several towers.

Tile-limned fireplaces in corners and sides ive a homey touch to many of the bedrooms; rched hallways relieve the usual stiff, squarealled halls ordinarily seen; unique flower-like entilators pierce the hall doors, but give perect ventilation with absolute privacy, and do way with cumbersome and awkward tranoms.

Drapes of unusual design and distinguishing olorings flank the chamber windows; handolored pictures of unusual and appropriate inch-square tiles, and have heavy gold and black bath rugs; shower curtains are in patterned colors, rubberized; the metal fixtures are chromite steel that retain perpetually their polished appearance, and a distinct novelty is the used razor blade slot in one of the wall tiles, that permits the dropping of old blades into a hidden receptacle.

Many of the rooms have great arched windows giving picture-like views over sea and mountains, and private porches and balconies.

The office floor is well planned. The usual utility departments are conveniently placed and

the lounge and dining-halls are in their own separate wings, with heavily-beamed roofs and expansive windows reaching to the floor. Gold and brocade drapes hang at the windows and tapestries, batiks and paintings adorn the walls. The furnishings follow the Spanish style, with a sprinkling of rare and authentic antiques.

The dining room is laid out in two levels, with unobstructed views of the channel on three sides. The rugs in the public rooms were woven in Spain to special order.

wall panels. This will be a popular room for stag parties as it is entirely separate and hidden.

The grounds are charming. Eucalyptus trees tower far above the buildings. Scraggy oaks dot the grounds; fishpole-like clumps of graceful bamboo lend an Oriental touch; tall slender evergreens form a Grecian court with a velvety greensward; flowers are everywhere and vines run rampant; the sea laves the stone wall and the sandy beach of the front lawn, and

PEN SKETCH, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
Reginald D. Johnson, Architect

Los Arcos (the arches), the wide hall connecting the lobby and the dining room, with its ceiling-height arched windows overlooking the sea and the islands beyond, gives access to all the public rooms. This is bound to be a popular room owing to its far-flung view and fine illumination.

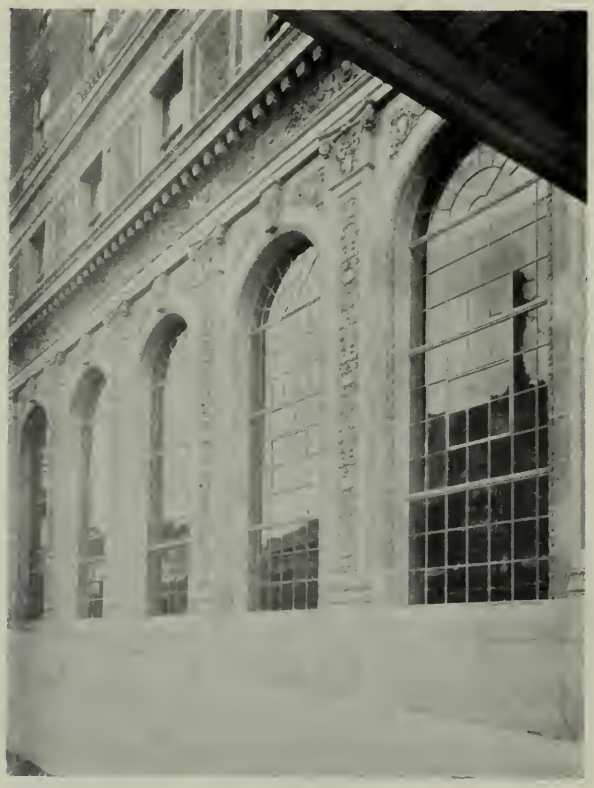
The Ship room enters off Los Arcos from a flight of steps and is finished to simulate a galleon cabin. Lighting is by ship lanterns and from high ports; an iron-bound mainmast passes up through the roof at one side; the center table is built on top of a capstan, and the roof beams are bordered by rope cables. An old map of the California coast fills one of the

majestic canyon-split mountains rear their dark heights behind.

There are many minor but none the less decorative features. Flower pot holders are worked into some of the iron balcony railings. Great urns stand in the niches flanking the entrance hall. Graceful red pottery sand jugs take the place of the porcelain sand stands that have become so universally used in the modern hotel in recent years. The ventilating and heating apparatus are combined and hidden in the walls of the public rooms. Radiators in the bedrooms are inset in the walls, and are faced with decorative iron grills. The telephone booths are large and roomy and have convenient seats.

LOBBY, NEW HOTEL BIGELOW, OGDEN, UTAH

LESLIE S. HODGSON AND M. A. MC CLENAHAN, ARCHITECTS



DETAIL OF FIRST STORY (UPPER) AND ENTRANCE TO BANQUET HALL, HOTEL BIGELOW, OGDEN, UTAH
Leslie S. Hodgson and M. A. Mc Clenahan, Architects

Directly on the waterfront is situated the Beach Club. This is a large cottage with practically a complete glass front on the ground floor. Here will be dancing several nights a week and a la carte dining service for the dancers. Cottages containing from four to ten rooms face on Hill drive on the mountain side of the plot.

In connection with the planning of this hotel it is interesting to note that the architect, Mr. Johnson, has been awarded a silver medal for excellence of design by the Architectural League of New York.

THE HOTEL BIGELOW, OGDEN, UTAH

ONE of the newer hotels in the Middle West is the Hotel Bigelow at Ogden, Utah, designed by Leslie S. Hodgson and Myrl A. McClenahan. The Bigelow nestles at the base of Mount Ogden, one of the notable mountains of Utah, whose snow-capped summit is a fascinating spectacle to tourists virtually the year 'round.

Across the street, west from the hotel is the City Hall park, which is used for many civic functions during the summer months and where the city authorities have placed the German artillery captured during the World War, which the Federal government presented to Ogden not long ago.

The hotel has been built on two of the West's most famous highways: the Yellowstone-Grand Canyon, and the Overland trail from east to west.

The Hotel Bigelow is fifteen stories in height, exclusive of basement, which makes it the tallest hotel in Utah, and among the three or four tallest buildings in the state. It is constructed of reinforced concrete with exterior facing of tapestry brick and buff terra cotta.

Referring to the plan of the hotel, a member of the firm of architects responsible for the design said: "Architects who have been called upon to solve the problem of planning modern hotels realize fully that hotel planning is one of the most complex building operations that confront the profession today. After studying the problem from all angles, by a process of elimination, the architecture of the Italian Renaissance was finally selected as being the most appropriate motif to be carried throughout the building, as it may be adapted best to the de-

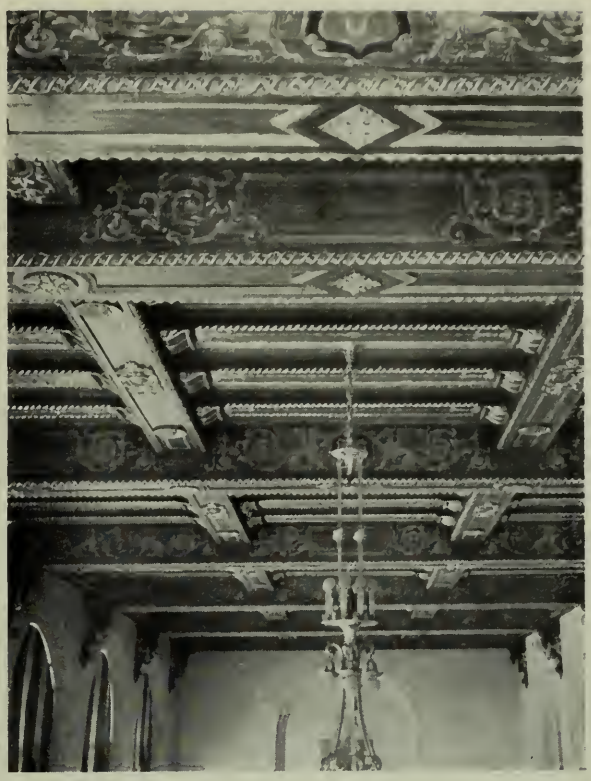
nands of a hotel that must be at once a real nonument to civic achievement, a quiet, dignified home for permanent guests, a meeting place for the people of the town and state, an attraction for conventions, and a home-like atmosphere for the traveling public."

The plan of the lower stories of the hotel has been made as simple as possible in order to secure the best service and have all parts of the house accessible. Whether one enters the building from the Washington avenue entrance or the Twenty-fifth street entrance, the office, elevators and main stairway and main dining room, etc., are easily reached.

The lobby floor is of marble, the walls are of Caen stone. The level of Twenty-fifth street is above that of Washington avenue and the difference in levels of the two streets has made it possible to break up the floor levels of the lobby in a most interesting way, providing beautiful vistas in all directions.

One of the features of the hotel is the lounge on the ground floor. This room, elevated a step or two, is entirely off the line of traffic through the lobby, and is very beautiful. The gracefully arched Caen stone walls terminate in a beamed walnut ceiling, carved and richly decorated in the Italian period. French windows overlook the dining room, while five high-arched and most impressive windows overlook Twenty-fifth street. At the far end of the lounge is an immense hooded-mantel fireplace.

The ballroom, which is used for the large banquets, runs parallel with a club dining room and the two can be readily thrown into one, making a room 50 by 70 feet. The ballroom ceiling is an adaptation from a Roman palace. The modeled coffers of the ceiling have been adapted from a palace in Florence and are harmoniously blended with the richly modeled cornice, pilasters and panels.



DETAIL OF LOUNGE CEILING (UPPER) AND BANQUET HALL, HOTEL BIGELOW, OGDEN, UTAH

Leslie S. Hodgson and M. A. Mc Clenahan, Architects

A. I. A. CODE OF ETHICS

THERE has lately been made public the new Code of Ethics which was adopted not long ago by the American Institute of Architects. The Institute's Committee on Ethics, of which Abram Garfield is chairman, prepared the code, which was made public by Milton B. Medary, Jr., of Philadelphia, president of the Institute. The basic principles of practice by architects are thus summarized:

The profession of architecture calls for men of the highest integrity, business capacity and artistic ability. The architect is intrusted with financial undertakings in which his honesty of purpose must be above suspicion; he acts as professional adviser to his client, and his advice must be absolutely disinterested; he is charged with the exercise of judicial functions as between client and contractors and must act with entire impartiality; he has moral responsibilities to his professional associates and subordinates; finally, he is engaged in a profession which carries with it grave responsibility to the entire public.

These duties and responsibilities cannot be properly discharged unless his motives, conduct and ability are such as to command respect and confidence.

The relation of the architect to his client is one depending upon good faith. An architect will explain the conditional character of estimates made before final drawings and specifications are complete, and will not by careless statements mislead a client as to the probable cost of a building. If the architect guarantees an estimate he becomes legally responsible, and he should not make any guarantee which affects in any respect the quality of his advice.

The contractor depends upon the architect to guard his interests as well as those of the client. An architect will condemn workmanship and materials which are not in conformity with the contract documents, but it is also his duty to give every reasonable aid toward a more complete understanding of these documents so that mistakes may be avoided. He will not call upon a contractor to make good oversights and errors made in the contract documents.

LOBBY, SAINTE CLAIRE HOTEL, SAN JOSE, CALIFORNIA
Weeks and Day, Architects

An exchange of information between architects and those who supply and handle building materials is encouraged and commended, but the use of the free engineering service which is offered by manufacturers and jobbers of building materials, appliances and equipment is accompanied by an obligation which may become detrimental to the best interest of the owner, and may easily become embarrassing.

The American Institute of Architects has set

forth a schedule or guide by which the proper professional charges may be determined. The architect's charges for his professional service shall be made to the client only, and he will not receive commissions, fees, gifts, favors, or any substantial service from a contractor, or from any interested person other than the client. He will not knowingly compete with a fellow architect on a basis of charges.

An architect in his investments and in his business relations outside of his profession must be free from financial or personal interests which tend to weaken or discredit his standing as an unprejudiced and honest adviser, free to act in his client's best interests.

An architect will not advertise for the purpose of self-laudatory publicity, but publicity of standards, aims and progress of the profession is to be recommended. He will not take part or give any assistance in obtaining advertisements or other support toward meeting the expense of any publication illustrating his work, in behalf of which he may be approached.

An architect may introduce to a possible client the service which he is able to perform, but will not, except under unusual circumstances, offer to continue this service without compensation until it has been approved and definitely accepted by the client.

An architect will not falsely or maliciously injure, directly or indirectly, the professional reputation, prospects or business of a fellow architect. He will not attempt to supplant another architect after definite steps have been taken by a client toward his employment; nor will he undertake a commission for which another has been previously employed until he has determined that the original relation has been fairly terminated and the original architect relieved.

An architect will take no part in a competition which does not include the provisions which experience has found to be necessary if the interests of the owner as well as the architect are to be safeguarded.

The principles were drafted by a committee on which the 57 chapters of the A. I. A. were represented.

DINING ROOM, SAINTE CLAIRE HOTEL, SAN JOSE, CALIFORNIA
Weeks and Day, Architects

The TENDENCIES of AMERICAN TASTE

THERE have been definite signs of late that the stock of available early American furniture is running low. The first type of furniture to be collected was the simple chair of painted type—the Hitchcock, the ladder-back and the Windsor. Then came the best of the old furniture—the grand pieces of mahogany and cherry and walnut. But during the last two years the taste has changed again, and instead of furnishing their drawing-rooms with appropriate mahogany highboys and cherry chests and chairs of mahogany inlaid with satinwood, American matrons are filling their homes with furniture of pine and maple.

Butterfly tables of rough pine in crudest execution, candle-stands which consist of a few rough spokes, chests which were originally woodboxes, maple chairs which were made for the front porch—all are enjoying their heyday of popularity. These would seem to be the only three types of Early Americana. The first two would seem to be superseded because the supply of them is exhausted, and we must look forward to a similar situation as regards the third.

Another sign is the present tendency to combine in the same room furniture of another land with that of early America. The most obvious example of this is the enormous popularity of French provincial furniture, which was unheard of in America two years ago. One large department store in New York has an antique department which imports huge shipments of rustic French chairs, tables, chests, beds and armoires every year.

This same store follows a similar policy with regard to furniture of other lands, although less extravagantly than with the French. It imports hundreds of pieces of English oak, in the more simple, less highly carved styles which harmonize well with the austere lines of the fashionable pine and maple of America. Spanish pieces are bought, too, but not so widely, and Italian likewise.

Instead of keeping their rooms severely in national character, the modern decorators are combining early American furniture with Spanish and Italian pottery, with toiles de Jouy of the most distinctively French designs, with English chintzes, with Irish glasses and brasses, and with furniture, too, from the provinces of France. Apart from its significance concerning the scarcity of American things, this fashion is in itself a delightful one. Many charming rooms have been done in this manner during the last few years, and it is definitely a step forward in decorating history.

But possibly the most obvious sign that genuine pieces of early American furniture are becoming more and more scarce is the enormous advance made during the last few years in both the quality and the quantity of reproductions of this type of furniture. As we have noticed before, the first reproductions made were of a hideous character.

If a Chippendale chair was desired, the only thing which seemed necessary to the manufacturer was to make up a chair with a splat

HOUSE FOR MR. RALPH LEE, HILLSBOROUGH, CALIFORNIA
A. F. Leicht, Architect

which resembled a vase of some sort or description. This done—from real mahogany or an inferior wood carelessly stained—the finish was not considered important, and the upholstery was a minor matter. No effort was made to approximate the surfaces of the older work, the softly rounded corners achieved by careful craftsmanship which are the very essence of old things.

Far different, however, are the reproductions now being made. While some of the designs are adaptations, they are of the sort which might well have been invented by the craftsmen of the period itself. Careful study by artists and experts has produced designs, proportions, details of constructions. Surfaces have been minutely explored, finishes examined, colors compared. A far better type of craftsman has been employed.

The result of all this is that we have been producing reproductions of our early furniture which are not only just as beautiful, but at times more so; surely, often, more practically constructed, especially for our steam-heated homes, and just as desirable in every way but one as the real, authentic antique objects.

HOUSE FOR MR. RALPH LEE, HILLSBOROUGH, CALIFORNIA
A. F. Leicht, Architect

With such excellent copies available on every hand, it seems that sentiment is now the only cause for anyone to insist upon genuine antiques. Formerly beauty was a just and important cause, but now that reason has disappeared. Unless one loves to think of all the persons who must have used the particular chair which one is at present occupying, or unless some famous person used it, or unless one's own ancestors used it, the old chair should be no more desirable than an equally beautiful new one.

Many sensible persons are becoming aware of the truth of this statement, and the dealers are, too, for they are raising the prices of the reproductions to almost the level of the prices of the antiques themselves.

It is not likely that the popularity of old things will diminish in the near future. The only reason for such an occurrence would be the rise of some new style to supersede the old, and it is difficult to imagine, at present, just what this style would be. Time only will tell, but meanwhile the popularity of the antique will doubtless continue to increase.

NOTABLE COLLECTION OF DRAWINGS

THE architectural drawings and water colors of the late Arnold W. Brunner, comprising one of the most notable of American collections, have been presented to Cooper Union by his widow. Here they will be on permanent public exhibition, and will be utilized by students in the free arts courses which have been a part of the curriculum of the Union since it was founded by Peter Cooper for the advancement of science and art in 1859.

Plans of leading cities throughout the United States and portrayals of nationally known buildings and institutions are included in the exhibit to be housed in the old brownstone edifice which stands at the corner of Astor Place looking down the Bowery, in New York City, and in which Abraham Lincoln, in 1860, made the address that gave him the nomination for the presidency.

Mr. Brunner, a native of New York City, who died in 1925 at the age of 68, was an international figure in the fine arts. His design for the Department of State in Washington was chosen in 1910 when the L'Enfant Plan was considered by the federal authorities. He laid out plans for

Baltimore, Rochester, Denver, Albany, Cleveland and Toledo, and acted as counsel to other American municipalities.

His plan for the Cleveland Post Office, chosen in 1901, is a feature at Cooper Union. The picture shows a building four stories high with a fifth above an ornamental balustrade which screens the windows. A basement of plain, substantial masonry is penetrated in front by nine arched doors. Nine Corinthian pillars, set close to the wall, and supporting the roof, show the classic style.

A staunch believer in the principle of collaboration in the arts of design, now being fostered by the Committee on Allied Arts of the American Institute of Architects, of which he was a Fellow, Mr. Brunner recognized sculpture as a decorative essential of his buildings. The Cleveland Post Office, Cleveland, Ohio, is a striking example of this tendency.

The New York of today bears evidence, in the Cooper Union collection, of Mr. Brunner's influence. Among the buildings he designed were the School of Mines, Columbia University; Mt. Sinai Hospital; Temple Beth-El, Fifth avenue and Seventy-sixth street; Educational Alliance, East Broadway and Jefferson street; Students Hall, Barnard College; the Moorish synagogue of the Congregation Shaaray Tefilla in West Eighty-second street; synagogue of Congregation Shearith Israel at Central Park West and Seventieth street.

Mr. Brunner was a member of the New York Board of Education in 1902, and as a representative of the arts was a pioneer in active public service in this field. The present activity of the New York Chapter of the American Institute of Architects in the school buildings situation illustrates vividly the remarkable continuity of the Brunner tradition.

Interiors K. Hope Hamilton Studios

FIREPLACE, HOUSE FOR MR. RALPH LEE, HILLSBOROUGH
A. F. Leicht, Architect

DINING ROOM, HOUSE FOR MR. RALPH LEE, HILLSBOROUGH
A. F. Leicht, Architect

WHEN IS AN ANT NOT AN ANT?

By
K. W. Dowie

WHEN it is a termite. Which is to say, the ant commonly known as the "white ant" is not an ant at all, but a termite, and one of the most destructive insects known to exist today. Until recently, many builders have regarded it with complacency, as being confined, like some forms of the plague, to certain parts of Africa and the Orient, but the discovery of the extensive damage done by these pests in Southern California and other parts of the United States has brought us face to face with a new problem. To be sure, we can rest more easily than a man with a wooden leg might in some sections of Africa, where, if he committed the indiscretion of going to sleep with his means of locomotion laid on the ground beside him, he might easily awake to find it reduced to powder in the morning; but we must study means of combating the pest nevertheless, because it is found throughout the world, between the latitudes of forty degrees above the equator and a similar distance below it. The warmer the climate, the more it flourishes.

About one thousand species are known. Of these, thirty-eight only are found in the United States, and only two of these reach the latitude of Boston, or the southern limits of Oregon and Idaho. Much might be entertainingly written about their various castes and the details of their social life, which would however, be irrelevant to an article of this nature. To those interested in buildings, three facts are of cardinal importance.

First, they subsist upon vegetable matter.

Second, they must work in the dark, and die if exposed to sunlight for a long period.

Third, communication with the earth is essential.

In the island of Formosa, off the coast of southern China, where the writer lived for a number of years, termites are an everyday, taken-for-granted affair, and do more damage to buildings than typhoons or earthquakes, which in that locality is no small statement to make. In the light of our experience there, some of the remedies suggested in the newspapers of southern California have seemed so unsound, not to say ridiculous, as to make us feel that a brief account of the methods used in Formosa might prove of some real value.

Extermination being out of the question, there remain only two ways of approaching the problem. The first is to keep the termites from contact with wood, and the second is to make the wood termite-proof. One method used to accomplish the first result in the case of brick walls was to run a four inch course of stone around the whole building, above ground and just below the first floor. It was a complete failure, for within six months after completion of the building, termites were found in the second story, having crept through a vertical joint between two of the pieces of stone which had been improperly flushed with mortar. Brickwork as ordinarily built is so full of cavities as to be almost ideal for termite travel, and only the most careful inspection can hope to outwit them.

A more successful plan was found to be the placing on the masonry walls of a sheet of galvanized iron, some two inches wider than the wall, and bent over as shown in Section 1. The under side of the galvanized iron was coated with asphalt, and care had to be taken to see that the lap joints of the sheets were hooked. This method will fail whenever it is necessary to have the sheet of iron at a height where it is pierced by anchor bolts, unless all punctures are well flushed with hot asphalt.

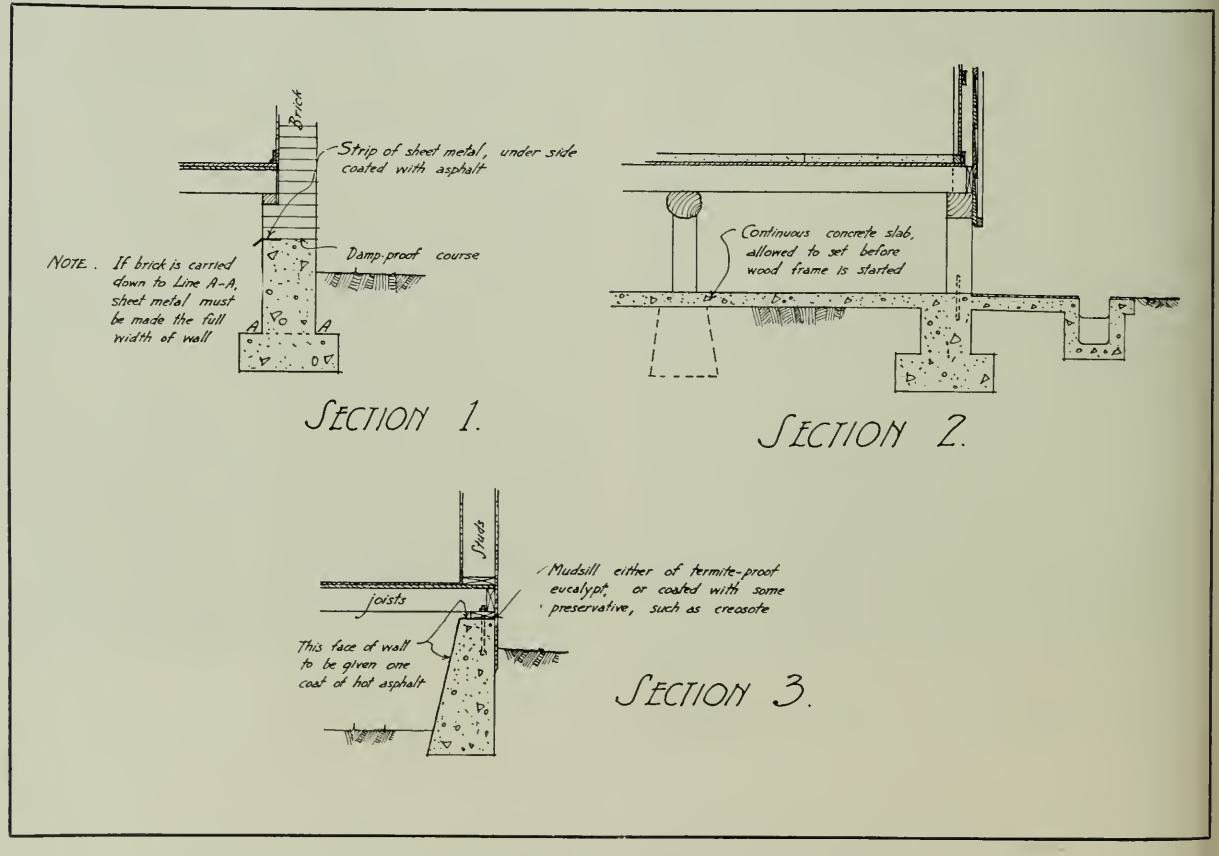
A third method now being much employed on Japanese buildings of wood is shown in Section 2. Here the **whole area** to be built upon is covered with a four inch concrete slab, made at one pouring, and allowed to set before mudsills

are placed. With good inspection, this argument against termites is unanswerable.

In the tropics, the danger from winged termites at the one season of the year when they swarm, is very great. There, the utmost care is of no avail to keep them from getting at the wood frame via the earth, as long as they can fly through the attic vents and start a colony in the top story. Their wings, curiously enough, drop off immediately after this flight. They are attracted, like moths, however, to a bright light, so the method we used to get rid of them in such a case was to place a pan of water directly under the light. The surface of the water became in an incredibly short space of time a confused mass of winged insects, and a coolie had to keep changing it constantly till the visitation was over. Happily, in the United States, (where there are no coolies!) so far as we know the flight of winged termites is unknown, so we may safely confine our efforts to keeping them from creeping up from their nests in the earth.

If termites are noticed coming from any well-defined quarter, it is well to try to track them to the nest, where the queen, an ugly, squat beastie, guarded by soldier termites and fed until she sometimes reaches the incredible length of four inches, will be found lying in state, performing her sole and continuous function of producing eggs. If she can be destroyed, the colony will disappear. Professional termite queen finders earn quite a good living in Africa.

To accomplish the second aim of making wood termite-proof, we are aided by the fact of their cordial dislike of all the coal tar products. Kerosene thrown on them will kill them in a few seconds, but it is too volatile to be of any use as a coating for wood. Creosote applied in pressure tanks gives a better result. The "full-cell" impregnation, however, is too costly and really more thorough than needed. It is quite likely that a single coat of creosote or any wood preservative, such as zinc chloride, would be all that would be necessary in this country. The usual asphalt damp-course along the top of


Brick
Strip of sheet metal, under side coated with asphalt
Damp-proof course
NOTE. If brick is carried down to Line A-A, sheet metal must be made the full width of wall
A
A
SECTION 1.
Continuous concrete slab, allowed to set before wood frame is started
SECTION 2.
Studs
joists
Mudsill either of termite-proof eucalypt, or coated with some preservative, such as creosote
This face of wall to be given one coat of hot asphalt
SECTION 3.

SECTIONAL DRAWINGS OF FOUNDATIONS INTENDED TO CHECK RAVAGES OF TERMITES

foundation walls will be a safeguard also, if made without a break. Section 3 shows a suggested treatment for the ordinary frame house.

Keeping in mind the fact that the termites must work in comparative darkness, we have nothing to fear from the outside of the wall. It is the inside face that is vulnerable, so a good added precaution is to give this whole face a coat of hot asphalt.

Do not imagine that it will be sufficient protection to have a concrete foundation wall, for it is the simplest matter in the world for termites to build their small mud tunnels up the inner side of the concrete and attack the mudsill, thus endangering the whole structure. In this connection, it is an interesting fact that three species of the eucalyptus are said to be termite-proof. These are Euc. Corymbosa (Bloodwood), Euc. Marginata (Jarrah), and Euc. Robusta (Swamp Mahogany). It might be a good protection against the future to plant these in southern California, with the idea of milling them for use as mudsills. For the present, of course, it would be simpler and cheaper to treat redwood. The writer has found that both redwood and Oregon pine are soon riddled by termites if buried under ground in some sections near Los Angeles.

To summarize our conclusions:

1. A course of sheet metal may be used to keep termites from the wood frame.

2. A better way, though more costly, is to cover the whole area with a continuous slab of concrete.

3. Destruction of the queen will disperse a colony in remarkably short time.

4. A coating with creosote or other preservative is necessary for mudsills.

5. It may be possible to develop the use of untreated termite-proof woods, such as certain species of the eucalyptus.

WINNING DESIGN FOR STOCK AND BOND EXCHANGE

THE winning design of a new building for the San Francisco Stock & Bond Exchange is shown on pages 64 and 65 in this issue of The Architect and Engineer. The architects are Messrs. Miller & Pflueger who have earned international fame as the architects of the Pacific Telephone building in San Francisco. The Stock Exchange design shows a distinctly modern tendency, coupled with logical solutions of the practical and aesthetic problems involved.

The jury of award was composed of J. C. Whitman, assistant to the president of the Stock Exchange; Ellis F. Lawrence, architect of Portland and dean of the College of Architecture of the University of Oregon, and Jesse E. Stanton of Los Angeles. Warren C. Perry, architect of San Francisco and member of the supervising staff of the School of Architecture, University of California, Berkeley, acted as advisor. Four other architectural firms, besides Messrs. Miller & Pflueger, were invited to participate in the competition. They were Messrs. Weeks & Day, Arthur Brown Jr., Bliss & Fairweather and Lewis P. Hobart. Their designs will be shown in the March issue, together with other pictures of the Miller & Pflueger scheme, and a descriptive article by Mr. Perry.

Executed by Gladding, McBean & Company

TILE PANEL, "THE DISCOVERY OF SANTA BARBARA CHANNEL"
BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

Steel Tubes May Solve SAN FRANCISCO BAY TRANSPORTATION PROBLEM

By Edward M Greene

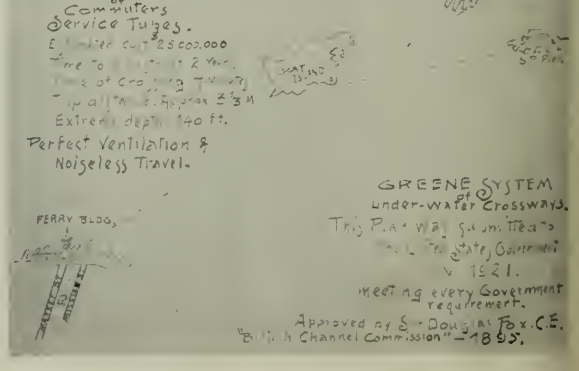
FOR many years, particularly at those seasons when low-lying fogs obstruct, impede and terrify the San Francisco Bay traffic, people and press have demanded in no uncertain terms, a quicker and safer way of crossing than the antiquated ferry boat system of today.

That the time is close at hand for a radical change in traffic conditions is evident; that there are finances in abundance for such a project is certain. The only question involved is a sane and simple, a safe and practical, a modern and scientific solution of the problem along the lines of present-day development, keeping pace with those forms of constructive advancement that are forward-looking in every sense of the word, rather than clinging to obsolete methods simply because they are accepted by builders of the past.

The crossways we need is one that will carry us in safety and comfort from the focal center of San Francisco to the focal center of Oakland; that will provide for a ten years' increase of travel; that can be built within a reasonable period of time and at a cost that will pay interest and retire the bonds at maturity.

Much has been written about a Bay bridge but aside from governmental acquiesence, there still remains the unanswered and unproven question of a foundation base upon which to rest the gigantic piers necessary to such a project. It is impossible to comprehend an engineer of intelligence advocating any type of pier dependent upon crowns of concrete, capping nothing but clusters of silt-driven piling known generally as floating piers, as being a practical solution of this question. The magnitude of the undertaking precludes the possibility of such an ordinary form of low bridge construction being adopted, for so gigantic a series of piers as these must necessarily prove to be. Clearance of less than 185 to 190 feet is impracticable in view of the fact that there are vessels today entering Eastern ports with masts of that height, and the inability to gain access to this harbor for that reason would mean an unfortunate diversion to San Pedro or Seattle and a consequent loss of the maritime trade that is ours by right.

Intelligent study should convince any engineer that the Bay of San Francisco is the lower end of the Santa Clara valley, a gigantic chasm, like the Grand Canyon of the Colorado, opening into that greater chasm, the Pacific ocean. That it has, through ages, filled with silt, erosions and slides is best evidenced by the depth charts issued by the governmental departments showing its rapid and positive fill. When the government engineers established the Pier Head line on San Francisco Bay, they placed it at the extreme edge of possible and practicable foun-

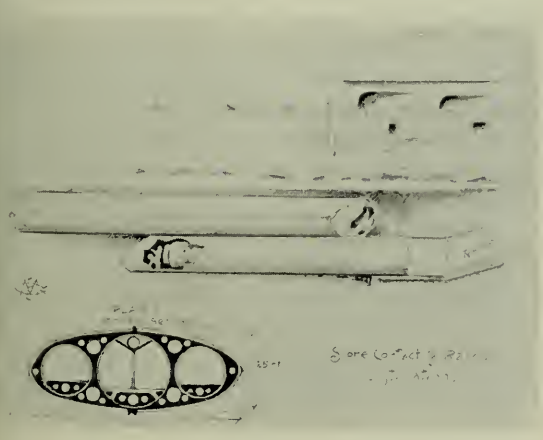


PROPOSED ROUTE OF TRANS-BAY TUBES

dation, the rim of the hop-off into the chasm. Eminent geologists (based upon all available data) declare it to be from 1000 to 1300 feet to bedrock (the lava flow). Allowing a four hundred foot pier for a two hundred foot clearance by suspension plan, would mean 400 feet plus at least 1000 feet to bedrock, or a possible total of 1400 to 1700 feet for each pier of the series, —something to think about?

Two more points and we will leave the bridge question. Modern battleships and cruisers are designed to tow dirigibles. Each one will have one or more gigantic airships in convoy, towed by cables from towing masts, and as their designer told the writer, no battleship or cruiser would attempt to pass under a bridge, even if it was 1000 feet high, with a dirigible in tow; and it would cost the government not less than $15,000,000 to $20,000,000 to correct, by dredging, the silt diversions due to either bridge piers, or to a concrete reef created by the incline from 80 feet below the surface to a bridge contact in the tunnel-bridge combination plan, depth charts of the Bay of San Francisco being known to the entire maritime world, and all silt-prism shifts must be adapted to conform therewith.

This is an age of advancement—an airplane age, so to speak. Modern engineering is necessary to keep pace with modern requirements, and so, when we speak about a bridge, we mean a crossways; a safe, sane, speedy and comfortable way to cross San Francisco Bay, not a plan that will take you from your office in the Russ building to your home in Piedmont by way of Hunter's Point and Bay Farm Island, but a way



SHORE CONTACT AND RAMP INSTALLATION

SECTION PLAN OF UNDER-WATER CROSSWAYS

whereby you can eliminate a trip part way to Santa Clara, a wobble through Alameda, a dive under Oakland Estuary, and a long, slow Oakland drag to your dinner table.

As a former state engineer said, anent the question of Oakland's attitude on the bridge question: "When San Francisco Supervisors are ready to show us a way to cross that is better than 90 minutes, we are ready to talk business, but we can calculate just as well as they can." The president of one of our largest civic bodies put it: "What our organization wants is a crossways, at the right spot, at the right cost, at the right fare, and with the right trip time." Briefly, the project resolves itself down to a commuters' service, plus a liquid mobility of travel. Take care of the travel that shuttles back and forth each day, and the problem is solved; the balance will take care of itself. Eastern and interior travel prefer to cross on the boats; they want the view.

To meet this situation we must have:

First—Accessibility. Eighty per cent of transbay travel, zone north of Howard street and east of Powell street.

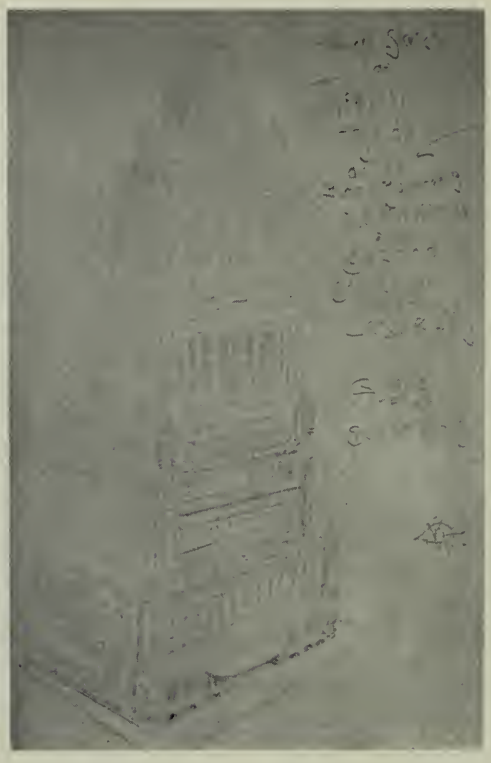
Second—Speed. Shortest possible distance between travel points.

Third—Comfort. Ventilation, plus smooth, noiseless travel.

Fourth — Cost. Distance from exit to entrance means lower cost, and is reflected in fares.

Fifth—Finance. Ability to finance depends entirely upon its earning capacity.

To divert the travel from its present route would destroy property values established over a period of seventy-five years. To build for posterity is nonsense; our children will build better than we. Any crossways can be built for thirty-three and one-third per cent less under private contract than under public. Under the Blue Sky Law its corporation cannot be overcapitalized. The Railroad Commission will set the fares, and the city can acquire the crossway any time it has the price, for less than they could build it. This solves the public ownership question.



SKETCH OF PROPOSED TERMINAL BUILDING

The Greene plan here illustrated contemplates the simplest possible type of crossway between the east and west shores of San Francisco Bay, and consists of a series of steel tubes embedded in asphalt-concrete contained within a copper-steel (non-corrosive) shell, the whole thing being covered with a protecting envelope of asphaltic-bituminous composition.

This tubular combination will be constructed in a shipyard, in completely finished, controllable size sections, fitted with removable bulkheads; launched and towed to the point of submergence, where it will be sunk to contact with an interlocking dovetail rail device that permits its positive and easy delivery at point desired.

This design is calculated to carry passengers and automobiles, besides a series of public utility tubes such as water, oil, gas, electricity high power, telephone and telegraph, U. S. mail, express, freight, etc., and to run from a simple entrance on Main or Beale streets midway between Market and Mission, in a bee line to the Key Route Pier, with possibly a Y from a point opposite the south tip of Goat Island to the Southern Pacific Pier.

The passengers will descend by escalator to a depth of fifty feet, where they will enter an electrically - propelled car similar in type to a sightseeing bus. There will be accommodations for preferably sixty passengers; as soon as the sixtieth one is seated the car will be released and, drawn by an electric mule running on a rubberized road-bed, with balloon tires and siderail buffer tires, will run noiselessly and speedily to its point of contact with the electric distributive car system on either pier.

The automobiles upon entering will shut off their engines, the escalator will carry them to a point of contact with a series of endless belts, by which system they will be carried forward (properly spaced) and out into the open, where they can start up their engines and proceed under their own power, thus eliminating carbon monoxide gas.

These tubes will be kept supplied with fresh air by a device that permits a continuous flow in both directions beneath the floorways and allows its upward percolation, and its subsequent escape by way of suction blowers overhead.

U. S. mail, express, etc., will be carried in electrically-propelled cartridge containers, each within its own tube system, while the other public utilities will be served as simply.

In calculating the plan just described it has been the idea to minimize its cost insofar as is consistent with practicability, comfort and safety, and it is believed to be the only plan

iat will pay interest upon the investment from s inception and provide funds for bond retire- ent when due. Its earning capacity will be any times that of any other type of cross- ays, while its cost will be but a fraction of ieirs. A capacity to meet capital's demands ill be the determining factor in any project this nature.

Shore-anchored guard cables will be laid on ie line of way at such distance from the tube s will best serve their purpose. These cables ill be utilized for construction purposes until ompletion of project, after which they will ecome guard or buffer cables to protect the ibe from anchor drag or similar dangers.

These cables will be tautened to the estab- shed tube grade and will then be held in place y a series of gigantic, flat, corkscrew anchors n either side, from which radiate clusters of uy cables. These guy cables will be tautened turn by concrete straddle anchors, having a oller bearing slot, that will be lowered astride ach guy cable until they sink in the mud bed. his will take up the slack and fasten the guard ibles firmly in place.

The cradle cable will then be placed in posi- on in lower center. This cable will be sup- orted at its entrance to, and exit from, deep ater by piling, so that its actual suspension ngth may be reduced to a minimum. This ible will in turn be stayed as before and will ien be trussed up to a cradle that will span ie suspension portion, and into which cradle ie tube will lay. The tube thus actually rests pon a suspension bridge beneath the water.

THE STEVENSON TEST DAM

By Chas. D. Marx

In Society of Engineers' Year Book

THE Stevenson test dam is located on Stevenson creek, a tributary of the San Joaquin river in the Sierra Nevadas about sixty miles east of resno, California. Some interest attaches to ie story of how the dam came to be built. For iany years we have had discussions in engi- eering papers on the theory of load distribu- on in arched dams, of a section too slight to esist the water thrust by gravity alone. The onstruction of the Bear Valley dam in the San ernardino mountains in 1884 by F. E. Brown, a civil engineer of Los Angeles, led to many discussions in engineering papers on the stresses likely to occur in structures of this type. One of the best papers at the time was submitted by Messrs. Hubert Vischer and the late Luther Wagoner, civil engineers of San Francisco, published in the Transactions of the Technical Society of the Pacific Coast in Volume VI, Dec. 1889.

Subsequent to the construction of the Bear Valley dam, many dams arched in plan, and depending for their stability on combined arch and gravity action, have been built.

In recognition of the fact that design of such structures as arch dams has been in the past based too much on assumptions, and realizing the importance of substituting a knowledge of the actual stresses set up in an arched dam for the theoretical assumptions, Dr. Fred A. Noetzli, a consulting engineer of Los Angeles, approached Director Alfred D. Flinn of the Engineering Foundation in New York, with the suggestion that Engineering Foundation sponsor research work along those lines. Mr. Noetzli was ably seconded by such well known Pacific Coast engineers as H. Hawgood of Los Angeles, M. M. O'Shaughnessy of San Francisco, Professor Derleth of the University of California, D. C. Henny of Portland, and others. To Mr. W. A. Brackenridge, Mem. Am. Soc. C. E., vice-president of the Southern California Edison Company, is due the credit for the suggestion of building an experimental dam comparable in size to a number of existing dams. In December, 1923, Mr. Brackenridge offered, on behalf of the Southern California Edison Company, funds and the use of remarkably suitable facilities for the construction of such a dam. The generous contribution of $25,000 was a good starter for raising the $100,000, which it was estimated by the committee would be needed to build the experimental dam. Through Mr. Hawgood, who was chairman of the local committee at Los Angeles in charge of the construction of the dam, the Los Angeles Flood Control District contributed $15,000 toward the work. Many power companies, corporations, firms and individuals contributed and, counting on additional funds as the work progressed, construction of the dam was begun.

The dam was designed to be built to a height of 60 feet with a bottom thickness of 7.5 feet

which at a height of 30 feet was decreased to 2 feet. This thickness was carried to the top. The dam, curved in plan with a radius of 100 feet, has a crest length of 140 feet. It was built of concrete without any steel reinforcement.

Placing of concrete in the dam was begun April 19, 1926. The last pour was made on June 4, 1926, by which time the dam had been carried to a height of 60 feet. While the concrete was being poured many instruments and reference marks were set in place so that the necessary measurements of strains and deflections could be made while the work was progressing and after the completion of the dam. Selecting of materials and mixing and placing of concrete was carefully controlled to get a concrete of usual characteristics but as uniform in strength and density as was feasible. To this end there was installed a Blaw Knox inundator, a device developed in recent years for controlling accurately the quantity of water and sand, taking account of the moisture in the sand as received at the mixer. The strength of the concrete has shown a high degree of uniformity. The average was slightly over 2000 pounds per square inch at 28 days. The strength aimed at was 1800 pounds per square inch at 28 days.

A complete series of tests on the properties of the concrete used in construction of the Stevenson creek dam, has been carried out and is still being carried out at the University of California under the direct charge of Professor Raymond E. Davis of the Department of Civil Engineering. Special financial assistance for carrying on this work was given by the Portland Cement Association. Results obtained from these elaborate tests will be published as part of the report on the entire work which Engineering Foundation will issue in the near future.

The tests on the dam were begun, as stated above, with the first steps of construction. Water was first let into the reservoir for test purposes to a depth of 20 feet on July 12, 1926. These depths were varied from time to time, and a series of measurements made with the reservoir filled to the desired level and reservoir empty. The dam was put to a full head test on the night of September 18-19, which test was later repeated on September 21-22. Since that time Mr. Slater, engineer-physicist of the Bureau of Standards at Washington, D. C., who has been continuously in charge of the testin work at the dam, moved his force of assistant to Los Angeles where he has been busy workin up the experimental data for their proper in terpretation. This work was under the direc charge of the local committee of which Mr Hawgood is chairman, ably assisted by Dr. F. A Noetzli, secretary of the main committee, an Mr. H. W. Dennis, chief civil engineer of th Southern California Edison Company. The lat ter had special charge of the construction o the dam.

The writer is not in a position to report th final conclusion to be drawn from the tests o the dam. It may be said that, in a general way the theoretical assumptions as to stress distri bution between cantilever and arch action i this dam are borne out by the facts. Detailed drawings showing this relation will be publishe in the near future.

While the experiments on the Stevenson dam were being carried out, and while a sub-com mittee on models of dams, under the chairman ship of Mr. J. L. Savage, chief designing engi neer in Denver of the U. S. Reclamation Service was being organized, Professor Beggs suggested to Engineering Foundation the possibility o getting data worth while from experiments o a celluloid model of the Stevenson dam, whic he proposed to build and on which he intende to measure strains and deflections. His proposa was referred to the main committee on arc dams and, after some discussion, approved. Th power section of the American Society of Civi Engineers also promised some financial assist ance. Comparison to date of the results ob tained by Professor Beggs and his assistant Mr. Sloan, are very encouraging. In spite o the difference in materials—concrete in on case, celluloid in the other, they give promis that deflection measurements on models of pro posed structures may give definite information as to the behavior of full size structures. Th tests which it is intended to carry out on con crete models of the Stevenson dam and of th Gibson dam will throw additional light on thi very important subject. Should it be definitel shown that from tests on models of a propose structure definite conclusions are warranted a to the behavior of the full sized structure, great step forward will have been taken for th intelligent and economic design.

NEW DATA on WINDOW LEAKAGE in SKYSCRAPERS

SOME extremely valuable and dependable data on air infiltration around metal windows in a modern office building and the effect of weatherstripping in reducing this leakage are reported in a paper presented by Director F. C. Houghten and M. E. O'Connell, of the Research Laboratory at the recent annual meeting of the American Society of Heating and Ventilating Engineers in New York City. The building selected for the test was that of the Southwestern Bell Telephone Company, in St. Louis, the architects being Mauran, Russell and Crowell and the associate architect, I. R. Timlin.

Each manufacturer of weatherstripping equipped one window and furnished other equipment necessary for the tests. The tests themselves, however, were made by the staff of the research laboratory during May and June, 1927, under the general direction of Samuel R. Lewis, chairman of the society's committee on research. The principal portions of the report follow:

The Southwestern Bell Telephone Building, in St. Louis (Fig. 1) is a modern skyscraper of the setback type, partly occupied by the telephone company for its exchange and office requirements. The other space in the building is leased for office purposes. The building is thirty-two stories high and contains 514,380 square feet of floor space.

Photo Underwood & Underwood

FIG. 1. SOUTHWESTERN TELEPHONE BUILDING, ST. LOUIS, MO.
Mauran, Russell & Crowell, Architects

Windows having a northern exposure in the northwest corner of the eleventh floor were chosen for test. These windows may be seen by referring to Fig. 1, while Fig. 2 shows a plan of the eleventh floor. Windows 1, 2, 3, 4 and 5 were tested. Window 6 was used for collecting wind pressure data and for other observations.

The investigation, for reasons, was of particular interest to engineers, architects and building owners because—

1. It gave an opportunity to study infiltration through metal windows, on which little or no data have been available.

2. It offered information on the average

Charts and data copyrighted by the American Society of Heating and Ventilating Engineers. Illustrations courtesy of Heating and Ventilating Magazine.

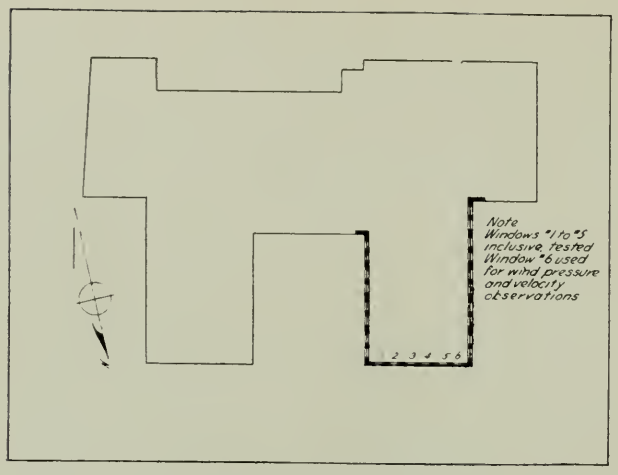


FIG. 2. ELEVENTH FLOOR PLAN, SHOWING LOCATION OF WINDOWS TESTED

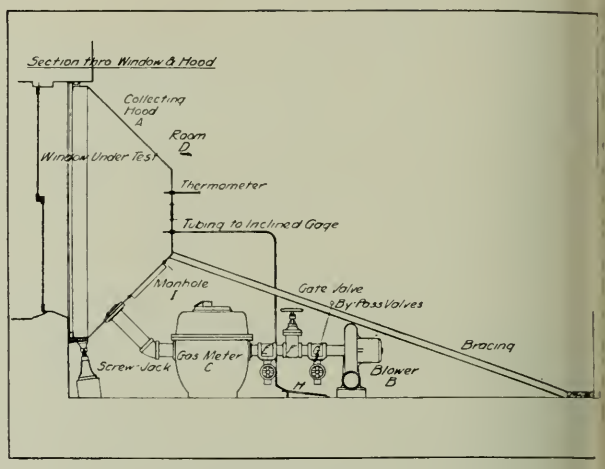


FIG. 3. METHOD USED IN THE ST. LOUIS AIR LEAKAGE TESTS

effect of various types of leakage-retarding devices in reducing infiltration through such windows.

3. It offered an opportunity to demonstrate the feasibility of making infiltration tests on windows in an actual building.

4. It was hoped that the findings would give an indication of the reliability of results on air leakage through windows collected under laboratory conditions where an artificial wind pressure is created by fans.

Because of difficulties with the orifice method of testing leakage around windows, the method shown in Fig. 3 was finally adopted and used throughout the tests. The collecting hood "A" was clamped to the wall around the window under test. Air was exhausted from the collecting chamber by means of the blower "B"

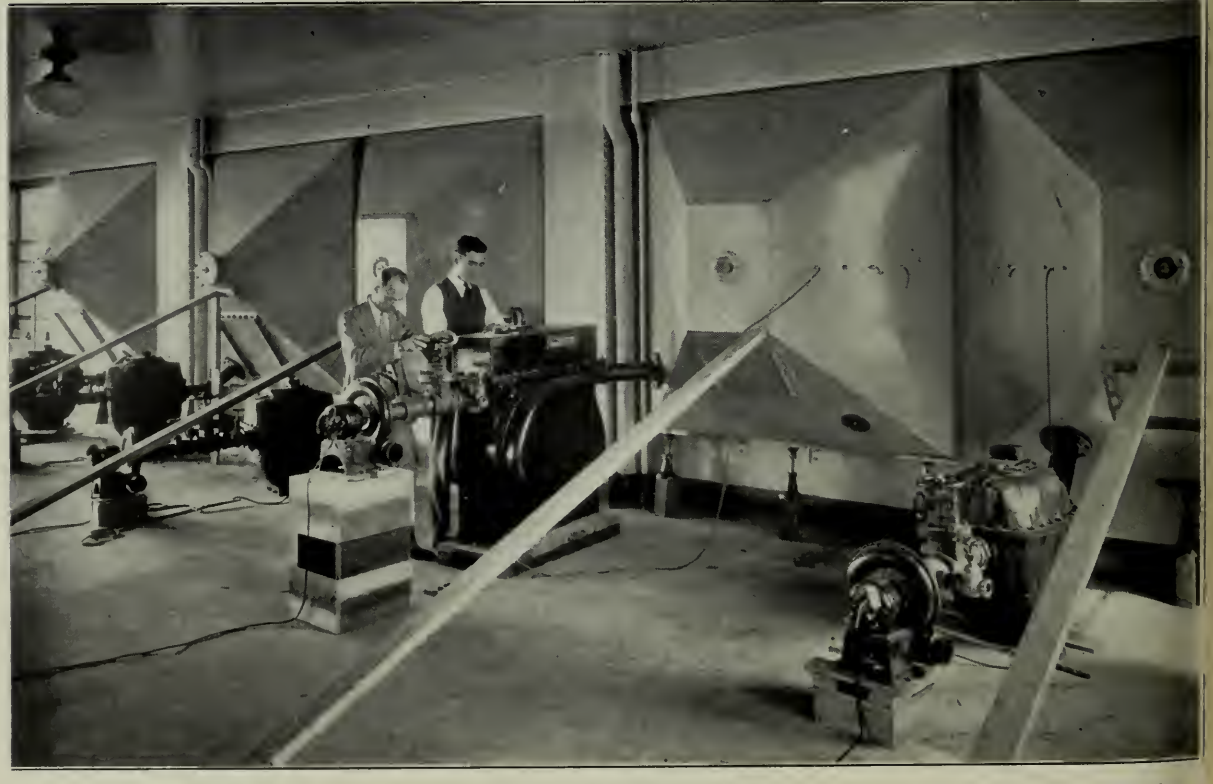


FIG. 4. SET-UP FOR TESTING WINDOW LEAKAGE IN SOUTHWESTERN BELL TELEPHONE BUILDING, ST. LOUIS, MO.

through the gas meter "C" so as to maintain zero pressure difference between the collecting chamber "A" and the room "D". This insured the same leakage through the window at any wind velocity as would take place if the collecting chamber was not clamped to it. In other words, it insured normal leakage through the window.

A calibrated gas meter was used for measuring the air taken from the collecting chamber. The exhaust fan used had a capacity in excess of the estimated requirement for exhausting all of the infiltering air through the meter. Valves "E," "F" and "G" made it possible to control the flow so as to maintain a constant pressure in the collecting chamber equal to that in the surrounding room, as indicated by a sensitive inclined pressure gauge "H". Meters having a capacity of 5,000 cu. ft. per hour were used for testing the weatherstripped windows. A 10,000 cu. ft. meter was used for testing the non-weatherstripped window. Standard 4-in. pipe was used for the duct between the collecting chamber and meter, and 3-in. pipe between the meter and blower. A 3-in. gate valve was used for main control, and 2-in. valves for by-pass control.

All five meters were connected in series with one of the exhaust blowers, and air was drawn through them at various rates. After taking into consideration the difference in pressure of the air passing through the different meters due to the pressure drop through the series, and after applying the calibration correction to each, all meters read alike at all rates of flow to within plus or minus 1%.

Fig. 4 shows the collecting chambers, meters, and other test equipment attached to the five windows under test. The windows were all of the same size and construction. The choice of windows for the different leakage-retarding devices was decided by lot. From the reader's right to left, they are in the following order—the Athey stripped window, the non-weatherstripped window, the Chamberlin stripped window, the Campbell improved window, and the Monarch stripped window.

The windows as found in the building were Campbell metal frame and a sash of that firm's standard specification of 1925. The unstripped window was tested without any adjustment or change from the condition in which it was found. Before the windows which were to be

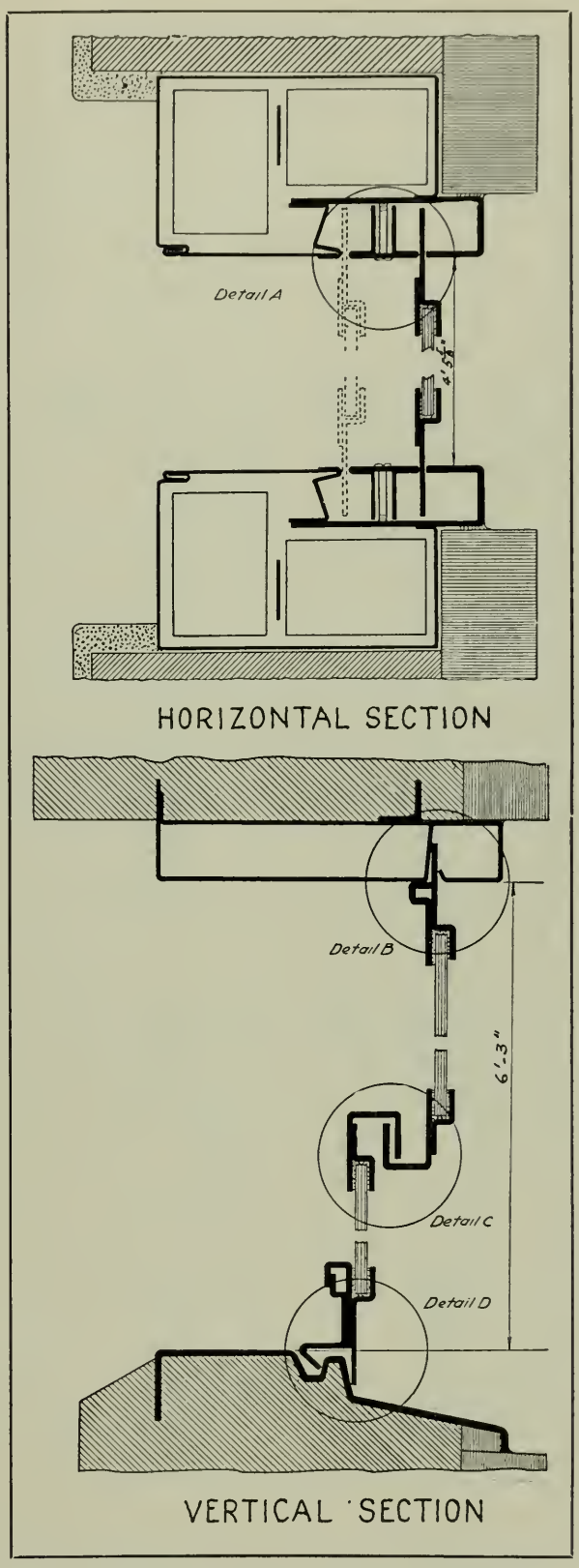


FIG. 5. CAMPBELL METAL WINDOW WITHOUT WEATHER-STRIPPING AS INSTALLED IN SOUTHWESTERN BELL TELEPHONE BUILDING

weatherstripped were altered, the force necessary to open each of the five windows was determined. A spring balance was attached by cords to the two hand grips on the sash and force of increasing magnitude was applied until the sash began to move. The force was then reduced so that the sash continued to move with uniform velocity. The force necessary to start the sash and that necessary to continue it in uniform motion after starting were both recorded. The forces necessary to start and open the windows after the application of the weatherstripping were also determined. The averages of the forces necessary to start the

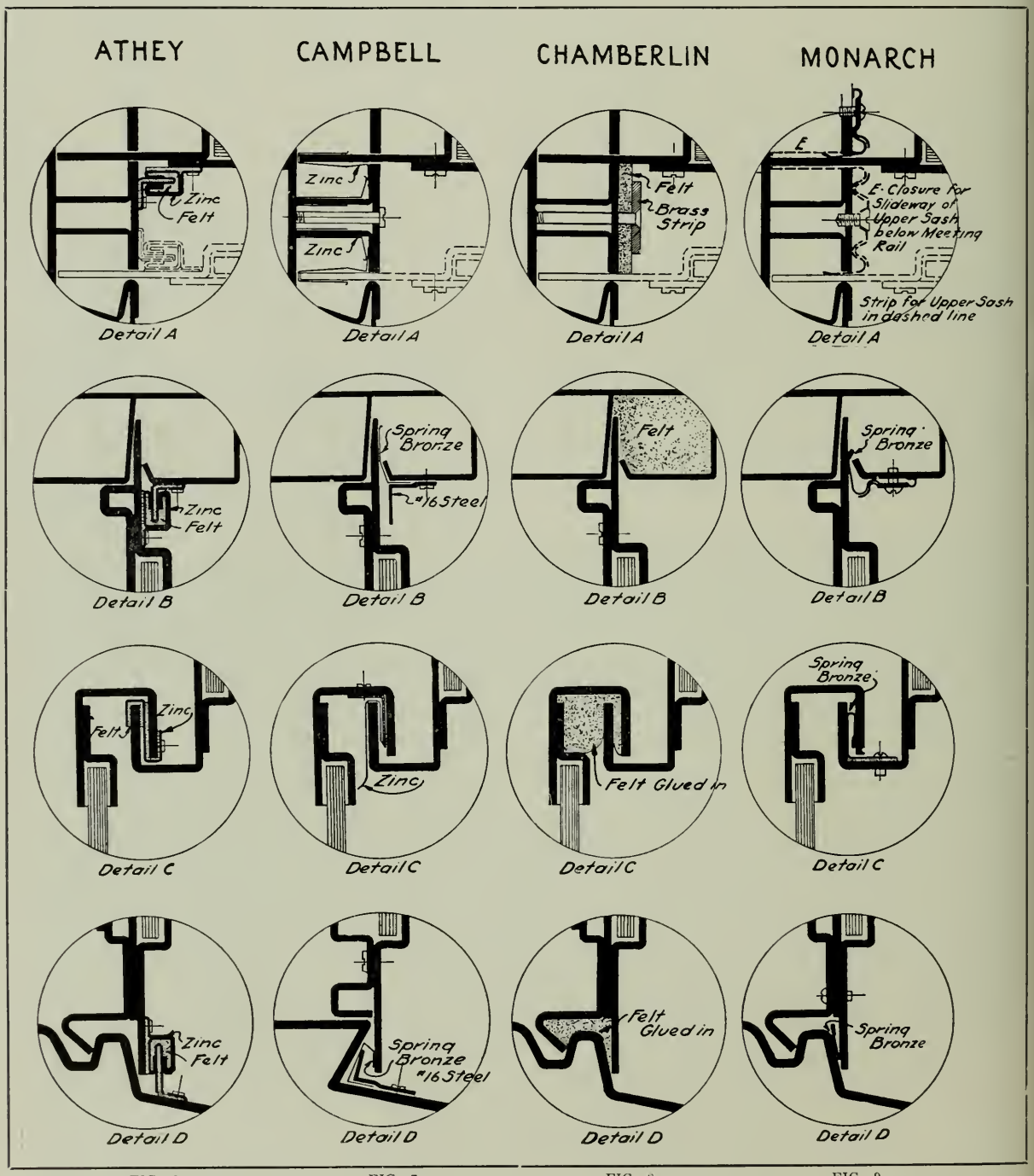


FIG. 6 FIG. 7 FIG. 8 FIG. 9

FIGS. 6 TO 9. DETAILS OF APPLICATION OF DIFFERENT LEAKAGE-RETARDING DEVICES, SOUTHWESTERN BELL TELEPHONE BUILDING

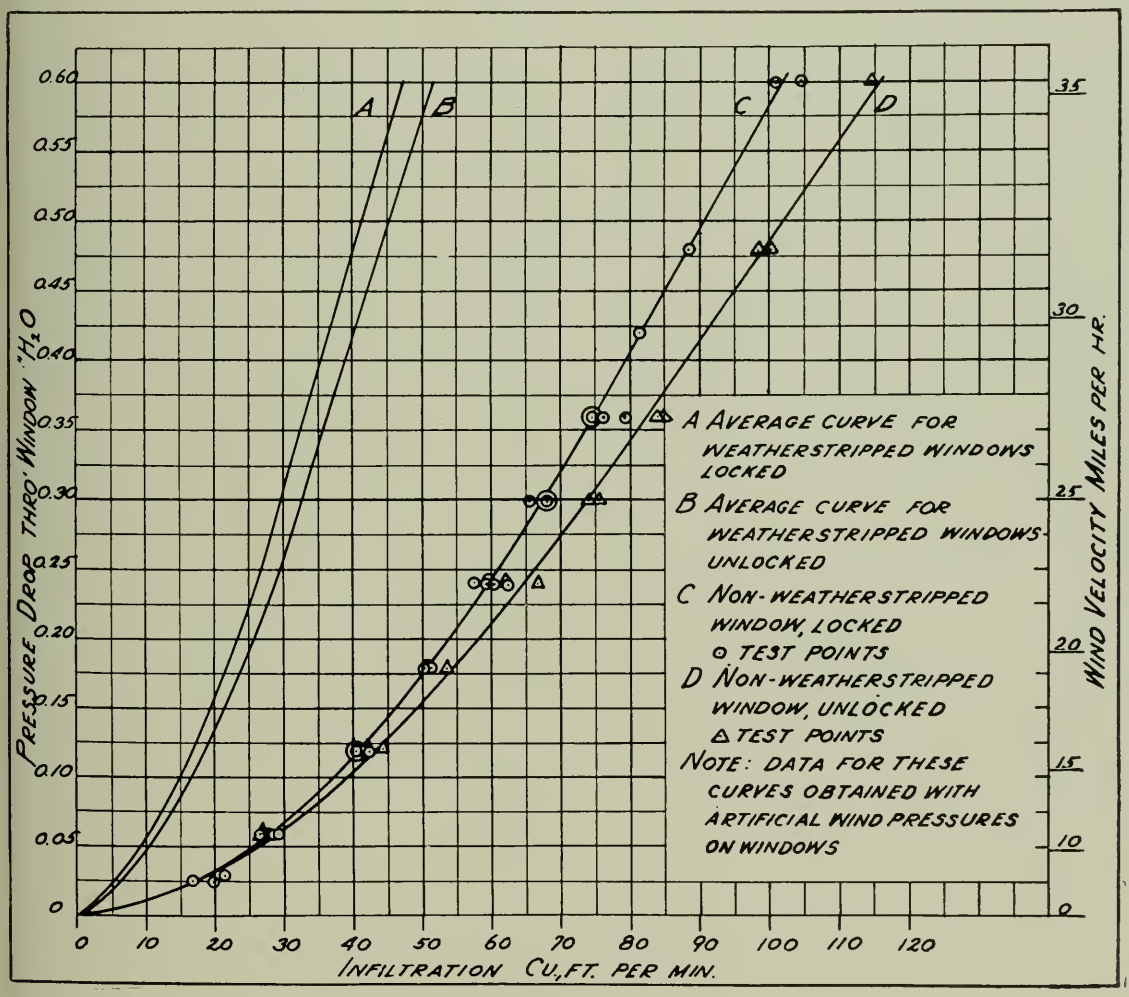
ix sash before and after the weatherstripping were 29 lbs. and 5 lbs., respectively. After the sash were started, average forces of fourteen lbs. and twenty lbs., respectively, were

TABLE 1. INFILTRATION THROUGH METAL WINDOWS

Wind Velocity Miles per hr.	Non-weatherstripped Window, Locked			Non-weatherstripped Window, Unlocked			Weatherstripped Window, Unlocked		
	Leakage cu. ft./-hr.	Heat Loss B.t.u./hr. 0-70° F.	Sq. Ft. Radiation	Leakage cu. ft./-hr.	Heat Loss B.t.u./hr. 0-70° F.	Sq. Ft. Radiation	Leakage cu. ft./-hr.	Heat Loss B.t.u./hr. 0-70° F.	Sq. Ft. Radiation
5	660	832	3.5	660	832	3.5	210	265	1.1
10	1470	1852	7.7	1530	1928	8.0	600	756	3.2
15	2280	2872	12.0	2400	3025	12.6	1020	1285	5.4
20	3120	3932	16.4	3360	4235	17.7	1488	1875	7.8
25	4050	5105	21.3	4440	5595	23.3	1950	2458	10.2
30	4980	6275	26.2	5520	6960	29.0	2460	3100	12.9
35	6060	7640	31.8	6870	8660	36.1	3060	3858	16.1

TABLE 2. INFILTRATION THROUGH METAL WINDOWS PER FOOT OF CRACK

Wind Velocity Miles/-hr	Non-weatherstripped Window, Locked			Non-weatherstripped Window, Unlocked			Weatherstripped Window, Unlocked		
	Leakage cu. ft./-hr.	Heat Loss B.t.u./hr. 0-70° F.	Sq. Ft. Radiation	Leakage cu. ft./-hr.	Heat Loss B.t.u./hr. 0-70° F.	Sq. Ft. Radiation	Leakage cu. ft./-hr.	Heat Loss B.t.u./hr. 0-70° F.	Sq. Ft. Radiation
5	25.5	32.1	0.13	25.5	32.1	0.13	8.1	10.2	0.04
10	56.8	71.5	0.30	59.1	74.4	0.31	23.2	29.2	0.12
15	88.0	110.8	0.46	92.5	116.8	0.49	39.4	49.6	0.21
20	120.4	151.8	0.63	129.7	163.4	0.68	57.5	72.4	0.30
25	156.3	197.0	0.82	171.4	216.0	0.90	75.3	94.9	0.40
30	192.2	242.2	1.01	213.0	268.7	1.12	95.0	119.9	0.50
35	233.8	294.9	1.23	265.0	334.3	1.39	118.1	148.8	0.62



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G. 10. TEST RESULTS SHOWING INFILTRATION THROUGH METAL WINDOWS WITH AND WITHOUT WEATHERSTRIPPING

necessary to continue their uniform motion.

It was hoped that data could be obtained on the decrease in leakage resulting from caulking around the frame. Therefore, it was planned to make tests first without caulking around the frames and again after the crack between the masonry and the frame was caulked. The windows tested, however, were so well caulked that a careful inspection did not reveal a single hair crack between the frame and masonry. It was not necessary, therefore, to caulk the frames.

To make certain that no leakage took place between the glass and the sash, all such joints were sealed where it seemed the least bit possible that leakage could take place.

Fig. 5 shows the frame and sash as found in the building. Figs. 6 to 9 show details of the application of the different leakage-retarding devices. The Campbell improved window was changed by that firm in accordance with the present specification of its standard equipment, which includes a leakage-retarding feature built into the window. Each of the other windows was equipped with weatherstripping by representatives of the respective companies participating in the studies. The test equipment was then installed and made ready for operation with the exception of closing the man-hole opening "I" (Fig. 3). Representatives of the different improved windows were then allowed to inspect finally their respective windows, immediately after which the windows were inspected by a committee of three, representing the architects, the Bell Telephone Company and the research laboratory. After inspection both the upper and lower sash of each window were run up and down several times, closed tightly, and locked. As soon as this was accomplished, the man-holes were closed and sealed.

The sixth window left (Fig. 2) was fitted with a tube leading outside, flush with the window surface, and connected by rubber tubing to an inclined pressure gauge for observing wind pressure against the window. The corner window at the reader's left (Fig. 2) having a western exposure, was likewise fitted with a tube leading to the outside, so that the wind pressure on this exposure could be observed.

A Tycos electric cup anemometer was placed on top of a pent-house on the roof of the Majestic Hotel, across the street from the windows under test. At that point, the anemometer was about 100 ft. in front of, and about 20 ft. below, the windows tested, and clear of all obstructions for about a block on all sides, with the exception of the Bell Telephone Building. The anemometer was of the electrical contact indicator type. Observation of the change in reading of the indicating instrument, which was in the test room, over a given period, gave the wind travel, and the average wind velocity could be calculated. The St. Louis station of the U. S. Weather Bureau is four blocks east and one block north of the Southwestern Bell Telephone Building, and meteorological readings for any period were available.

In making the test, an observer manipulated the valves so as to maintain a zero pressure drop between the collecting chamber and the room, as indicated by the sensitive pressure gauge before him. An observer was required for such manipulation for each window under test. If sufficient observers were not available for making simultaneous tests on all windows, tests were made on at least two windows, one of which was always the non-stripped window. Another observer made frequent observations of the anemometer indicator, pressure gauges, meters and wind direction. The wet-and dry-bulb temperatures also were recorded. The wind direction and velocity and barometric readings later were obtained from the weather bureau for the period of the test.

It was hoped to obtain tests with wind velocities perpendicular to the window ranging up to 30 miles an hour, but it was soon found, however, that satisfactory wind was not to be had excepting at very infrequent intervals, and then the velocity was never very high.

A large number of tests were made with pressure drops through the window created by exhausting air from the collector chambers. Pressure drops equivalent to various wind velocities could easily be maintained for such tests. One observer controlled the pressure drop through each window under test by manipulating the valves while another observer recorded other observations. A few tests also were made by reversing the process—that is, by blowing air into the collecting chamber through the meter so as to give a desired positive pressure in the collecting chamber and a pressure drop through the window.

After an extended series of tests with the locked windows had been made, the seal on the man-hole covers in the collecting chambers was broken, and the covers were removed. The windows were unlocked, opened and closed several times and then closed tightly, after which the man-holes were again closed and sealed. A short series of tests was then made on the unlocked windows, with artificial wind pressures only, that is, by maintaining a pressure drop through the window by exhausting air from or blowing air into the collecting chamber.

Points on curves "C" and "D," respectively (Fig. 10) are the result of tests with artificial wind pressures on the non-weatherstripped window, locked and unlocked.

(Additional charts in the research laboratory's report showed how closely the test points for natural wind pressures against locked, non-weatherstripped windows checked with the pressure drop resulting from natural winds as observed at another window.)

Curves "A" and "B" (Fig. 10) are the averages of curves for all four weatherstripped windows for the locked and unlocked conditions, respectively.

The data in Fig. 10 and Tables 1 and 2, indicate that consistent results can be obtained from tests on windows in an actual building. The data collected when artificial wind pressures are produced show a very consistent curve, even though tests were made under varying conditions and over a period of several weeks. In this connection it was found that for natural wind pressures practically the same leakage results from a given pressure drop regardless of whether it is produced artificially or by a natural wind. Curves "A" and "B" (Fig. 10), the averages of all weatherstripped windows tested, show that the average of the leakage-retarding devices decreased the leakage about 56% for a 30-mile wind.

It should be added that the maximum variation of any strip from the averages as given in curves "A" and "B" (Fig. 10) is little greater than might be expected by the application of the same strip to two different windows by different mechanics. The variation in leakage through the different stripped windows tested is of minor importance when compared to the great reduction in leakage resulting from the application of any of the strips tested.

Curves "C" and "D" (Fig. 10) show the reduction in leakage resulting from locked windows. This fact is of some importance in the conservation of heat, and is a factor worthy of consideration in meeting the heating requirements of a large building in severe weather. The heat loss by infiltration through windows of the type tested is reduced about 10% by locking, with a 30-mile wind.

1. The investigation establishes the heat loss by infiltration through the metal windows tested for different conditions as given in Tables 1 and 2. It indicated that infiltration loss through such metal windows can be reduced about 10% by locking an unweatherstripped window, and an average additional 56% by applying weatherstripping of the types studied to the locked window.

2. Application of leakage-retarding devices to metal windows of the type studied can be accompanied by an average reduction in radiation installed to meet the heating requirements in zero weather with a 15-mile wind, of 0.28 sq. ft. per foot of crack around the sash or a reduction of 7.2 sq. ft. per window of the particular size investigated.

3. Determination of infiltration through windows in actual buildings is quite feasible although much more difficult than making similar tests under laboratory conditions.

4. Data collected under natural wind pressures in an actual building are practically the same as those collected for artificial wind pressures. It may be assumed, therefore, that data collected under laboratory conditions with artificial wind pressures are quite satisfactory.

The PATIO of YESTERDAY and TODAY

By H. W. Shepherd ~ Landscape Architect

ALBERT DENTON TERRACE, BERKELEY

HISTORICAL and architectural traditions surrounding the patio or enclosed garden are very ancient. Though we are wont to associate the patio with things Spanish in home building and garden craft, the Spanish patio is, historically speaking, but the final blending and consummation of traditions from many sources other than Spanish. The enclosed garden probably found its earliest expression in India, Central Asia and Persia at a period antedated by many years the full flowering of Greek civilization.

The Greeks, drawing upon the Orient for inspiration, very naturally incorporated the patio in their architecture. From the hands of these people with their genius and instinct for form, the patio and its planting received, in common with all the architecture of this civilization, those structural elements of design and form which are subordinated in Oriental art but are the root of all Occidental arts. In the fusion of the Greek and Roman cultures architectural values of the patio became even more pronounced, for the ancient Roman was an individual with a strong building sense and mind, and the trait survives to this day in the Italians, whose homes, in every detail of their masses and furnishings, vitally, even aggressively, express this structural and architectural instinct.

ALBERT DENTON TERRACE, BERKELEY

When the Moors invaded Spain they took with them as a matter of course, their architecture and patios. So complete was their domination of this land and its people, that the architecture which has made Spain a treasure house for the art student is an outgrowth and flowering of principles that are basically Moorish. By reason of proximity to Italy and the mingling of the two peoples, Italian influences crept in, but the prevailing spirit never strayed far from Moorish principles.

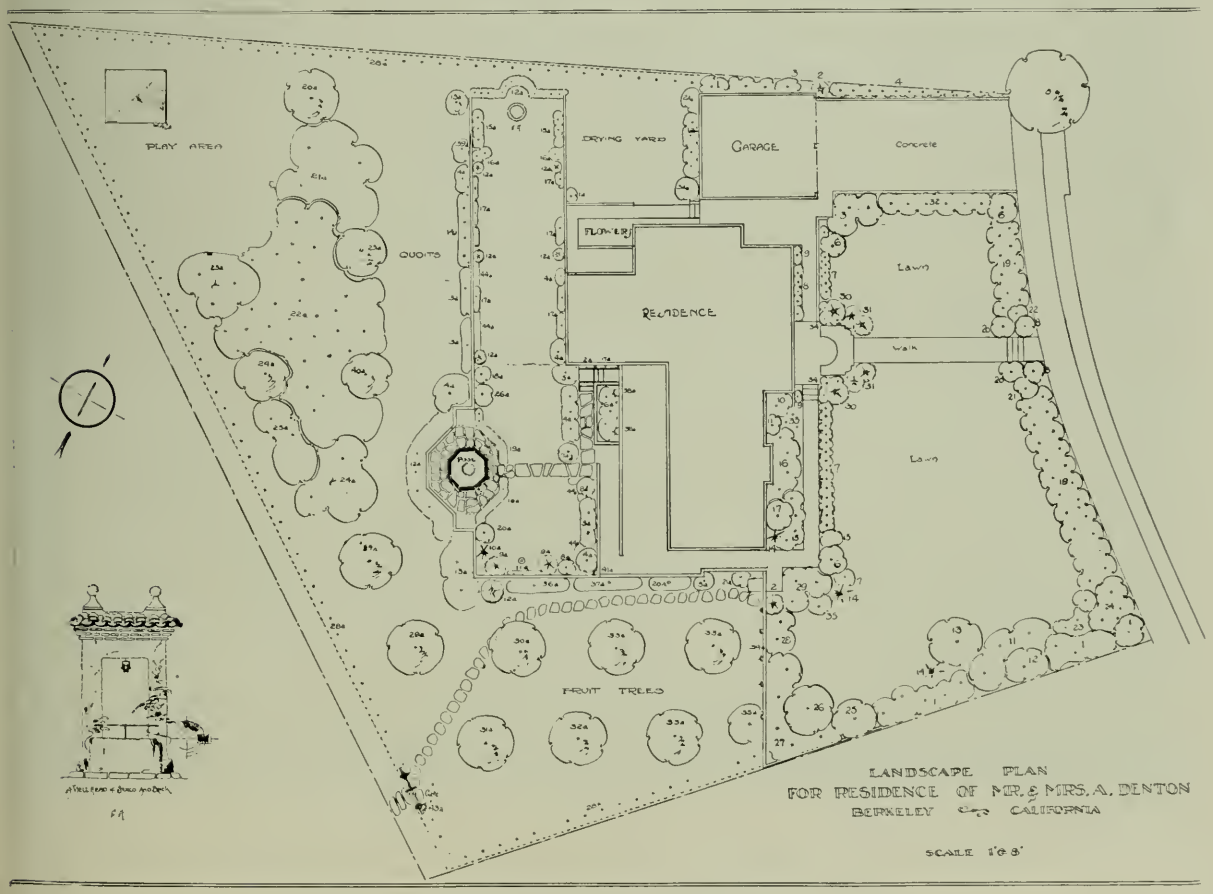
While these ancient builders and garden makers achieved results of striking and impressive beauty, their patios served other purposes than those of ornamentation. The patios of Old Spain and even of modern Spain were closely bound

up with the comforts of everyday living. Water, which plays so large a part in the spell of the patio, was not on tap by merely connecting up with an underground street main. It usually had to be diverted from higher levels to lower with provision made for temporary storage and household use. Such was the artistry achieved by these old builders that the form of the purely utilitarian belongs in the realm of the fine arts and the casual observer is rarely conscious of the astute provision for practicality. He is conscious only of the exquisite perfection of the whole picture.

GARDEN AND POOL, RESIDENCE OF MISS MABEL SIMS, BERKELEY

This was the conception of the patio that the Spanish Padres brought to our own California. They found a land and climate eminently fitted to graciously receive the patio, but the role of the Padres was that of pioneers in a far wilderness. The needs of the body must come before those of the mind; the necessities of life must be provided

(Turn to page 105)

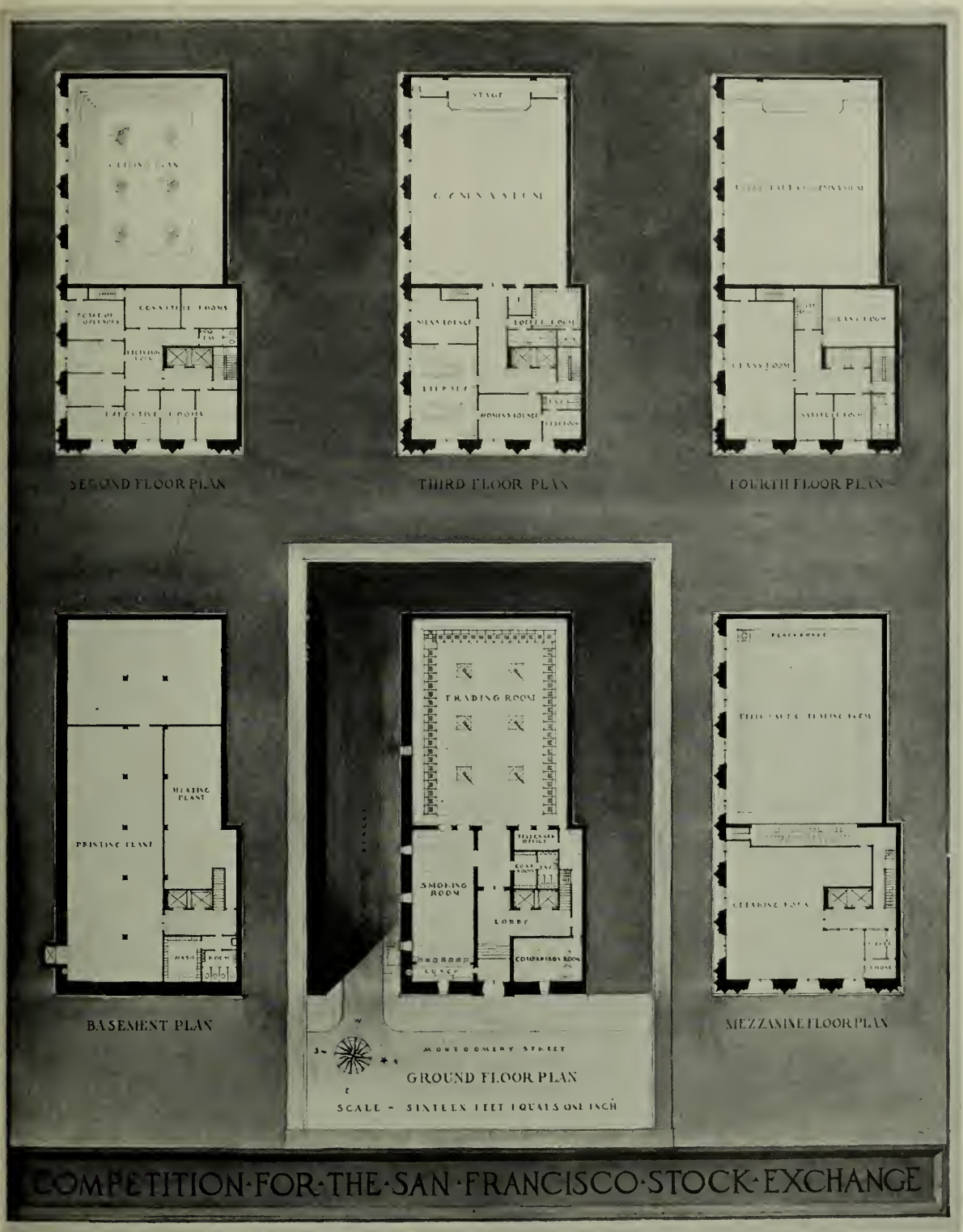


LANDSCAPE PLAN, RESIDENCE OF MR. A. DENTON, BERKELEY
H. W. Shepherd, Landscape Architect

Photo by Moulin

WINNING DESIGN FOR STOCK EXCHANGE BUILDING, SAN FRANCISCO

MILLER AND PFLUEGER, ARCHITECTS



See page 49

PLANS, WINNING DESIGN FOR STOCK EXCHANGE BUILDING, SAN FRANCISCO

MILLER AND PFLUEGER, ARCHITECTS

COST DATA FOR COMPLETE ELECTRICAL HOSPITAL INSTALLATION

ONE reason why the electrical industry has not made more progress in the work of selling the idea of electric cooking, water and air heating, has been a startling lack of real statistics covering actual installations under work-a-day conditions. The following letter, written by the superintendent of the Kern County Tuberculosis hospital, known as Stonybrook Retreat, in the Tehachapi mountains on the Southern California Edison Company lines, is particularly illuminating. The connected load at the time this letter was written was 100 kw. The consumption and revenue for the first nine months in which the equipment was installed were as follows:

	Kw-hr.	Revenue
May 26 to July 30, 1926	2,240	$ 49.56
July 30 to Aug. 30, 1926	2,960	61.58
Aug. 30 to Sept. 29, 1926	4,880	99.10
Sept. 29 to Oct. 29, 1926	11,120	223.90
Oct. 29 to Nov. 30, 1926	15,760	316.70
Nov. 30 to Dec. 30, 1926	22,560	452.70
Dec. 30, '26, to Jan. 31, '27	20,320	407.90
Jan. 31 to Feb. 28, 1927	19,840	398.30
Feb. 28 to March 29, 1927	22,640	454.30

This institution is located about 3,000 ft. above sea-level, and during approximately six months of the year is subject to rather low temperature, requiring a lot of heating.

Extracts from the letter, published in Electrical West, follow:

We have been using electricity for heat, cooking, heating of water, and light and power for the past year. I can give you the figures in terms of kilowatts or in any other way that you may desire, but, possibly if I tell you the cost of doing this it will mean more to the average layman than if I should give you the number of kilowatts used and then submit you to the labor of calculating the cost.

I have put wattmeters on the various features of equipment and therefore have rather accurate figures in regard to the cost of operating each appliance.

Our electric range, oven and griddle used for doing all the cooking for the institution—50 patients and 25 employes—averages $2 per day.

Air heating, which means heating the dressing rooms, bath rooms, examination and X-ray rooms, dining rooms and the employes' living quarters, averages for the six months from November to May, $5.98 per day.

I found it was not economical to heat large bodies of water by electricity. The most economical installation is at the nurses' home, a 30-gal. hot water range boiler connected to a 3-kw. Hotpoint automatic electric water heater. The cost of operating this unit is 30 cents a day during the winter months.

The nurses' home, superintendent's cottage, night nurses' cottage, cottage for women help, cottage for men help, and in fact all the outlying buildings, are equipped with either a 3-kw. automatic water heater and a 30-gal. tank or, as in the children's building where there are twelve people using the water, we have a 66-gal. tank and a 3-kw. water heater which gives ample hot water for all purposes. We tried a 100-gal. range boiler with a 5-kw. automatic electric water heater in the kitchen and also one in the infirmary. In the kitchen it was successful; it supplied plenty of water, but it cost as much for hot water as it did to do the cooking. In the infirmary, where a great deal of hot water is used, it averaged $2.40 a day. This, I concluded, was too expensive, and therefore for supplying large amounts of hot water I found that a 1,000-gal. tank with a Universal distillate burner is much more economical as an abundance of hot water can be supplied at an average cost of $45 per month for labor, upkeep, distillate and everything pertaining to the heater. Therefore, for your outlying buildings I suggest that you use water heaters and 30 to 66-gal. hot water range boilers. For the kitchen and hospital building, if gas is not available, use a Universal distillate burner in conjunction with an 800 to 1,000-gal. storage tank.

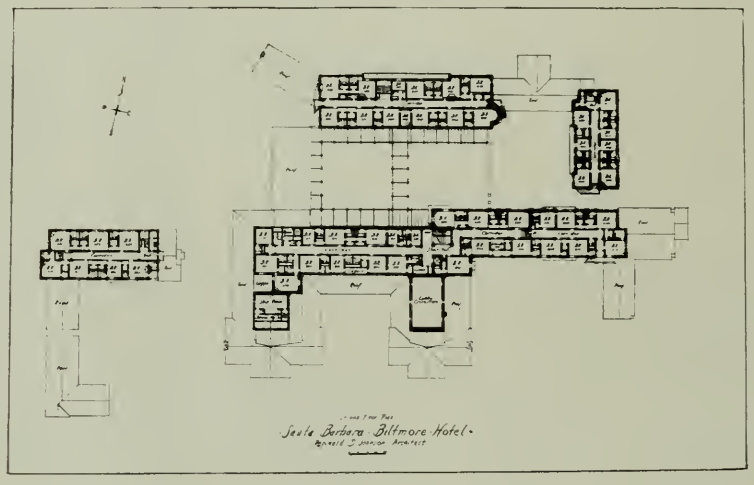
We find that we can cook and heat by electricity for about the same amount that it cost us when using wood and coal, but we lack the inconvenience and the dirt connected with the use of wood and coal and have, on the whole, a much more satisfactory service.

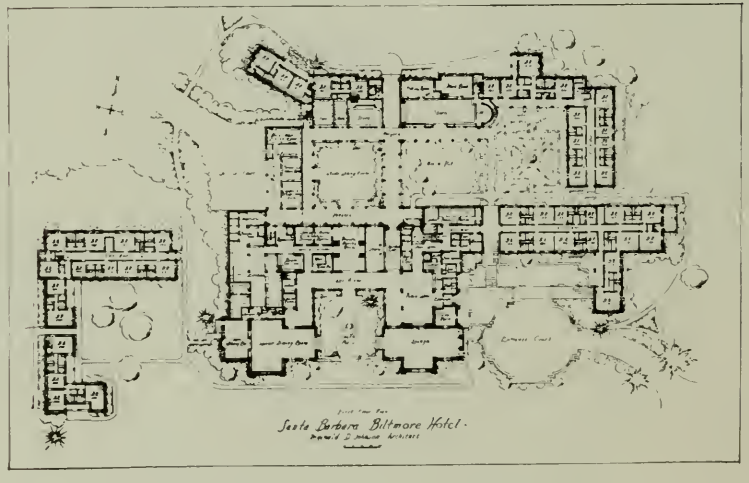
TOWER, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

REGINALD D. JOHNSON, ARCHITECT

MAIN FACADE, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

REGINALD D. JOHNSON, ARCHITECT





PLANS, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

REGINALD D. JOHNSON, ARCHITECT

PERGOLA WALK, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

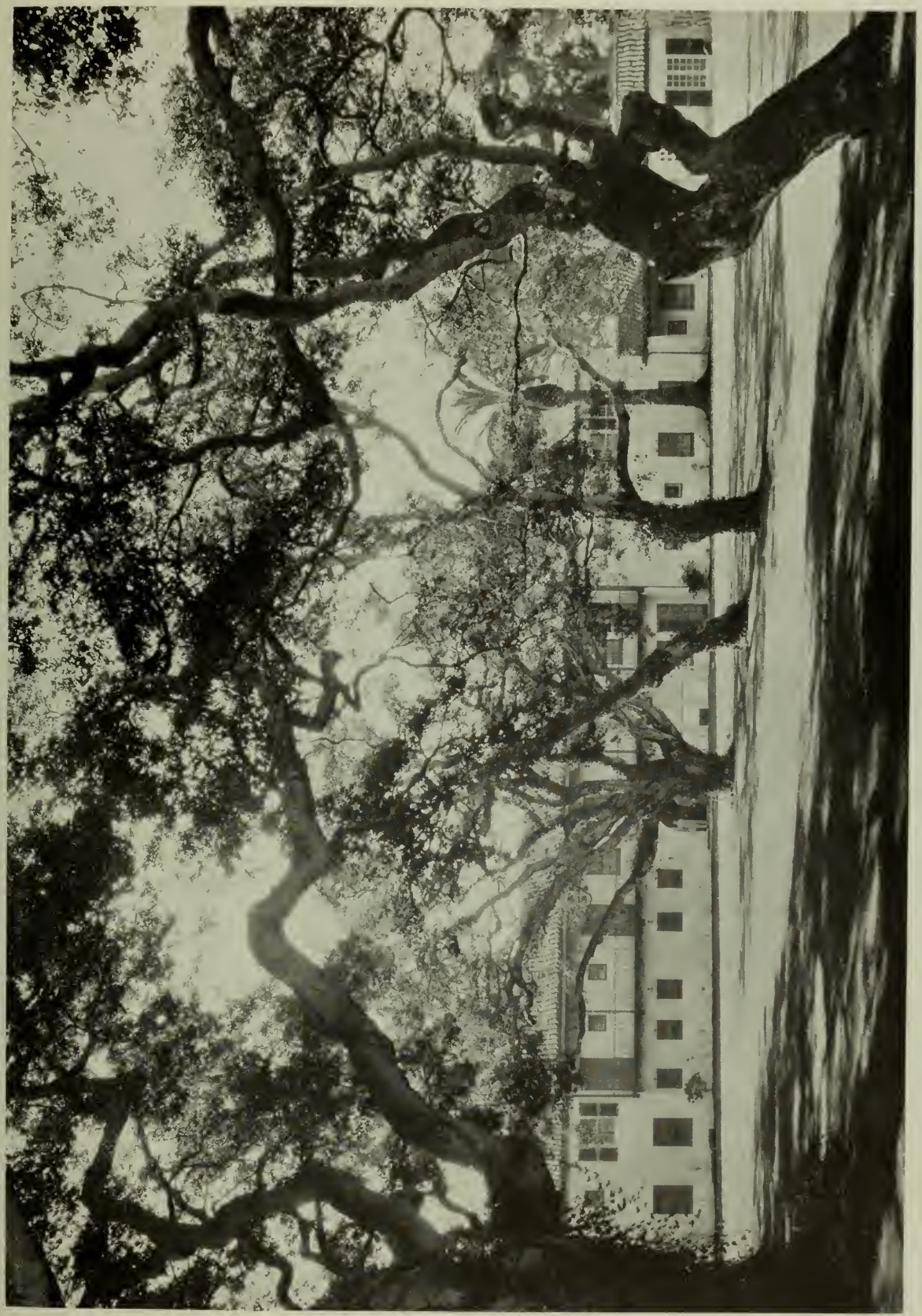
REGINALD D. JOHNSON, ARCHITECT

WALK ACROSS PATIO, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

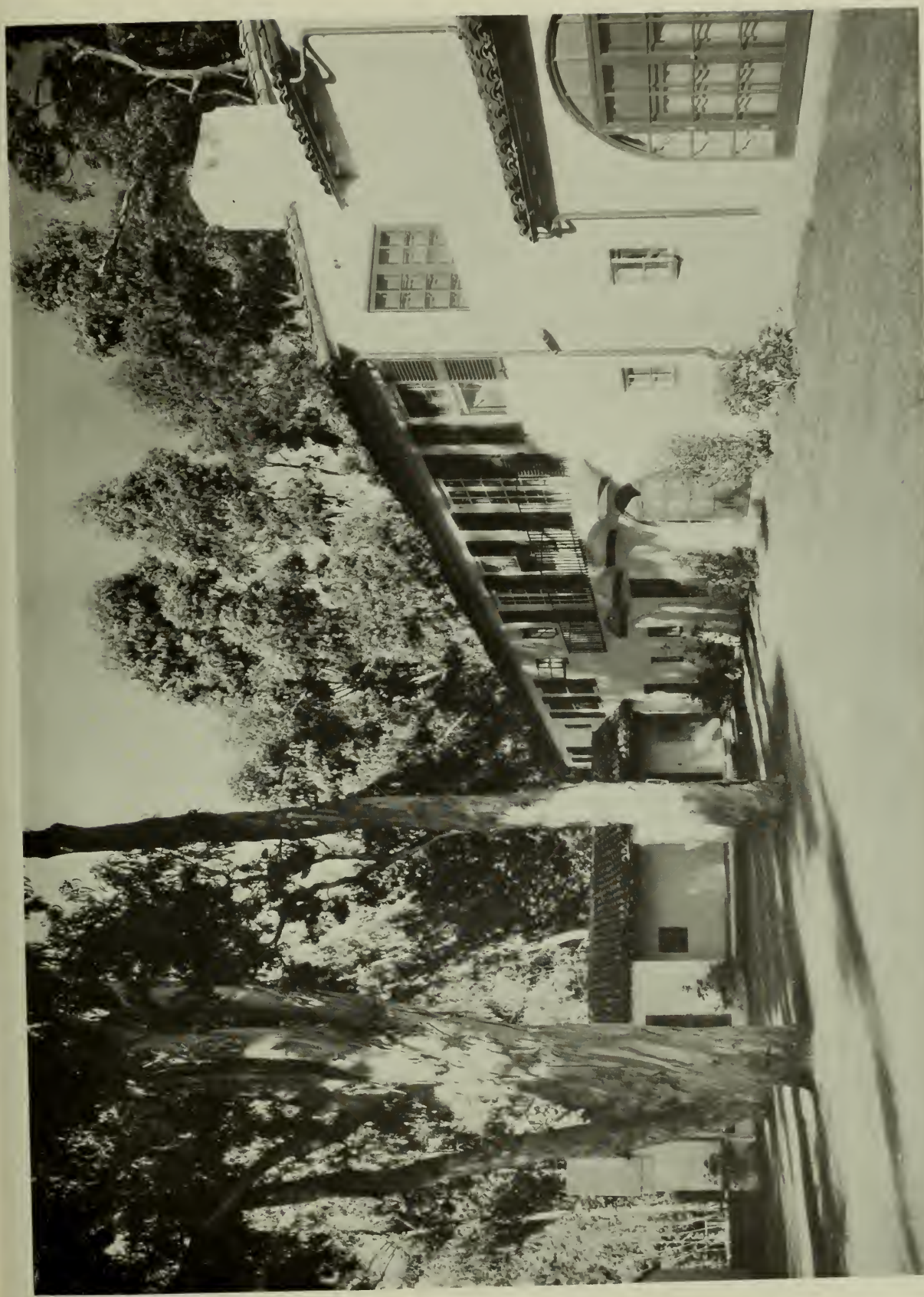
REGINALD D. JOHNSON, ARCHITECT

BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
REGINALD D. JOHNSON, ARCHITECT

Keystone Photo



BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
REGINALD D. JOHNSON, ARCHITECT



BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

REGINALD D. JOHNSON, ARCHITECT

LOBBY, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA
REGINALD D. JOHNSON, ARCHITECT

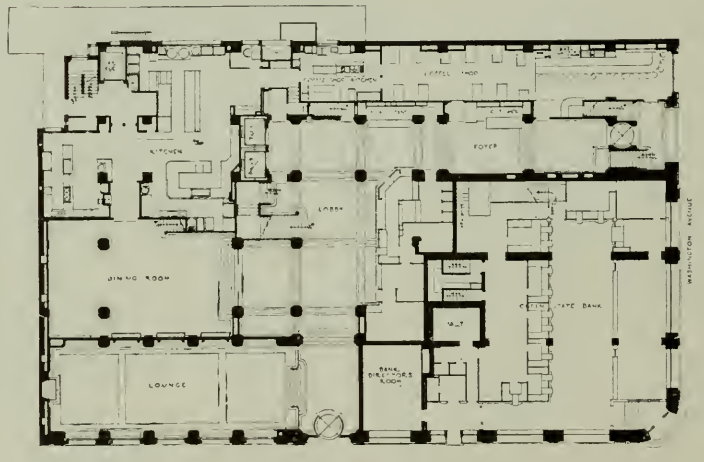
Thickness of cement walls shown at Lobby Doorway on left

LOUNGE, BILTMORE HOTEL, SANTA BARBARA, CALIFORNIA

REGINALD D. JOHNSON, ARCHITECT

THE NEW HOTEL BIGELOW, OGDEN, UTAH

LESLIE S. HODGSON AND M. A. MC CLENAHAN, ARCHITECTS



FIRST FLOOR AND TYPICAL GUEST ROOM PLANS, HOTEL BIGELOW, OGDEN

LESLIE S. HODGSON AND M. A. MC CLENAHAN, ARCHITECTS

SAN FRANCISCO
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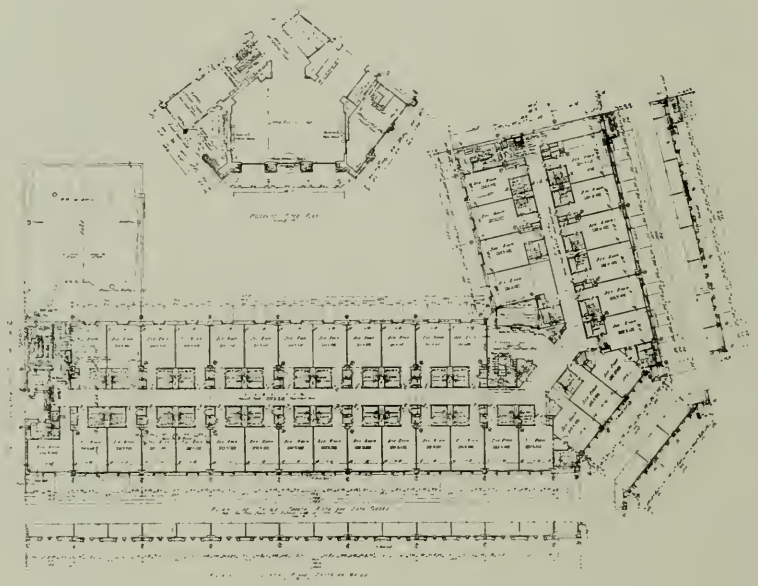
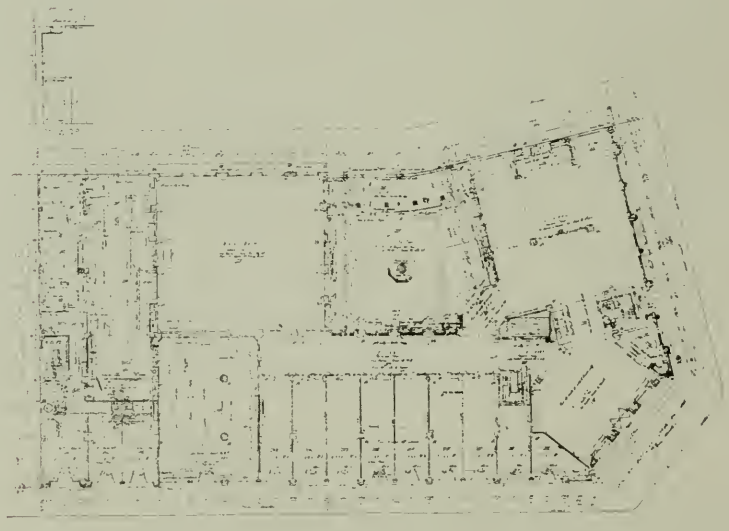
Photo by Waters

HOTEL SAINTE CLAIRE, SAN JOSE, CALIFORNIA

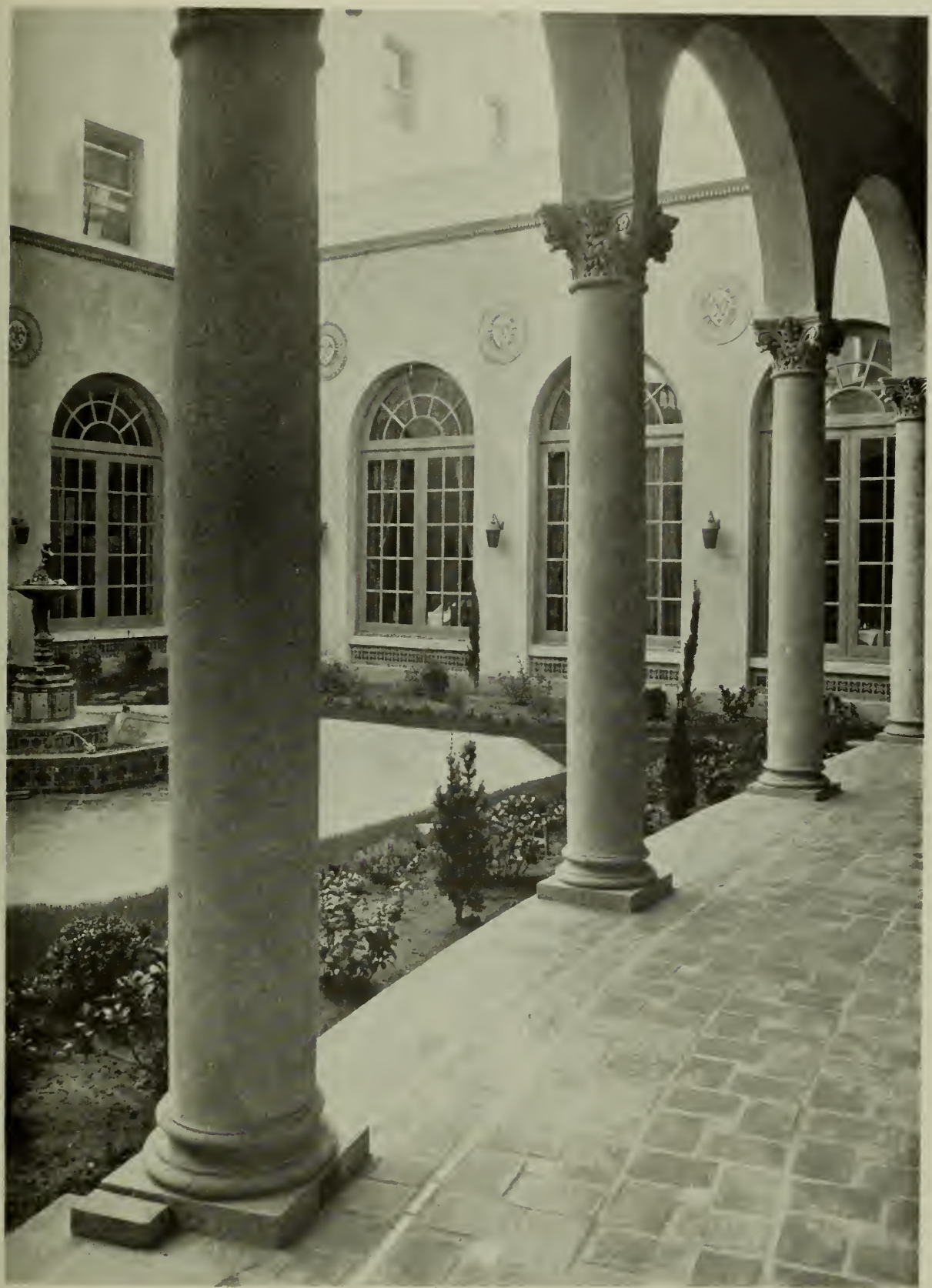
WEEKS AND DAY, ARCHITECTS





PLANS, HOTEL SAINTE CLAIRE, SAN JOSE, CALIFORNIA

WEEKS AND DAY, ARCHITECTS



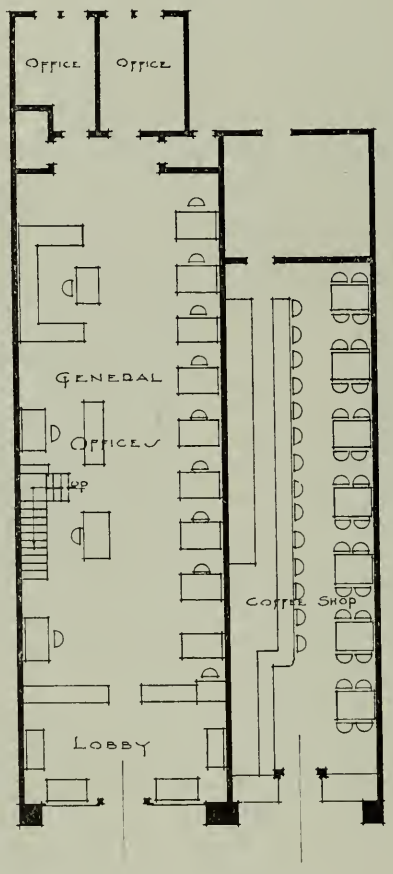
LOGGIA AND PATIO, HOTEL SAINTE CLAIRE, SAN JOSE, CALIFORNIA

WEEKS AND DAY, ARCHITECTS

Photo by McCullagh

ROY O. LONG OFFICE BUILDING, BERKELEY, CALIFORNIA

EDWIN LEWIS SNYDER, ARCHITECT



PLAN, ROY O. LONG OFFICE BUILDING, BERKELEY, CALIFORNIA

EDWIN LEWIS SNYDER, ARCHITECT

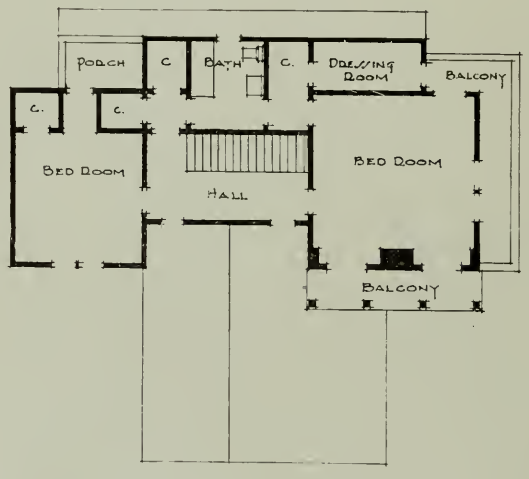
RESIDENCE OF DR. H. H. HITCHCOCK, BERKELEY, CALIFORNIA
EDWIN LEWIS SNYDER, ARCHITECT

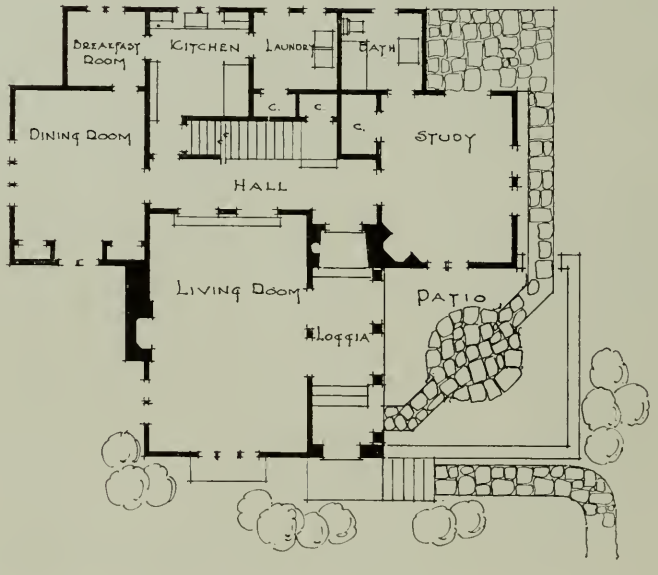
Photo by McCullagh

Photo by McCullagh

RESIDENCE OF MR. CHARLES J. PERRY, BERKELEY, CALIFORNIA

EDWIN LEWIS SNYDER, ARCHITECT





PLANS, RESIDENCE OF MR. CHARLES J. PERRY, BERKELEY, CALIFORNIA

EDWIN LEWIS SNYDER, ARCHITECT

Photo by McCullagh

LOGGIA, RESIDENCE OF MR. CHARLES J. PERRY, BERKELEY, CALIFORNIA

EDWIN LEWIS SNYDER, ARCHITECT

Various Methods of WATER PURIFICATION

By Thos R. Duggan ~ PhD
Technical Manager ~ The Permutit Company

ALL water at some time during its many changes of state exists in the form of vapor in the atmosphere. Lowering temperatures, greatly assisted by finely divided solid matter, such as dust floating in the air, cause the minute particles of water vapor to collect into larger particles that form mist or rain drops. These are precipitated under favorable conditions and reach the earth as rain, sleet or snow.

Such precipitates moving through the air come in contact with, and absorb to a surprising extent, varying quantities of the many gases diffused in the air.

The principal gases are CO_2 and O. Nitrogen and possibly hydrogen sulphide may be absorbed, if present, but for their general effect upon the composition of the water as a whole they may be disregarded.

Because of its acidity due to absorbed CO_2, and its initial freedom from impurities, rain is a tremendously active solvent and quickly takes in all manner of impurities.

As it journeys along the earth's surface, in rivers or percolates into subterranean streams, it picks up and holds in suspension such particles as organic matter, clay, sand, iron and alumina and often sewage and industrial wastes. Without fear or favor, it continues its way, dissolving salts of calcium, magnesium and sodium, such as carbonates, bicarbonates, sulphates, chlorides and nitrates. The gases already present assist in the dissolving or combine with newly procured salts or remain in excess as the conditions determine.

For reference and discussion, the principal impurities may be classified as follows:

(1) Inorganic or mineral
  (*a*) Sand and clay
  (*b*) Iron and alumina
(2) Organic

I. Suspended Matter
  (*a*) Living organisms
  (*b*) Animal matter
  (*c*) Sewage
  (*d*) Oil

II. Dissolved Matter
  (1) Gases
    (*a*) Oxygen
    (*b*) Nitrogen
    (*c*) Carbon dioxide
    (*d*) Hydrogen sulphide
  (2) Solids
    (*a*) Salts of calcium and magnesium
    (*b*) Salts of sodium and potassium
    (*c*) Organic and inorganic iron
    (*d*) Manganese and aluminum salts
    (*e*) Organic compounds

From the very beginning of history, water has been universally used in the vital phases of the arts and industries. Many processes have delicate and critical stages where the impurities present in the water cause serious damage and losses.

In boilers, the impurities present in the feed water precipitate as mud, sludge or scale varying in thickness and hardness. These deposits on the wetted side of the heating surface cause the same kind of difficulties as soot deposited on the fire side of the heating surface. They act as insulations and therefore not only cause loss of boiler efficiency and waste of fuel but frequently cause local overheating of the tubes, drums, etc., resulting in bulging, tube blowouts, blisters, etc. The deposits also necessitate frequent boiler shutdowns in order to permit cleaning, which means an idle investment.

Abstracts from a paper read before the Montreal branch of the Engineering Institute of Canada.

As boiler ratings and pressures increase, and more and more heat units are forced through the heating surface onto the water to form steam, the need for scale-free or sludge-free heating surfaces becomes more imperative. Furthermore, the cost of making steam is receiving greater attention today than formerly because of the rising costs of fuel and labor, which demands higher efficiency. The labor of cleaning boilers, the value of the fuel wasted by the scale, the cost of tube replacements and other repairs made necessary by scale and damage frequently resulting from the scale cleaning operation,—all these have naturally created a demand for pure water and have likewise furnished the stimulus for improvements in the art of water purification to provide feed water of higher and higher quality.

The various methods of water purification in use today may be classified as follows:

Removal of suspended matter—by settling; coagulation and settling; filtration.

Removal of dissolved matter—(a) Gases, by aeration, deaeration, heating; (b) Dissolved matter—distillation; treatment by soluble reagents; contact with the insoluble reagent, zeolite.

Sedimentation alone is effective for the removal of only heavy particles like sand or mud. For finely divided turbidity, color or organic matter it is customary to employ some coagulant such as alum sulphate or iron sulphate which forms a flocculent precipitate, (floc), that enmeshes these smaller turbidity particles in its midst to permit removal by settling or filtration. Filtration alone, following the application of a coagulant, is used for waters that are not extremely turbid, but in the latter case the use of filters is frequently preceded by the use of a settling tank in which some of the floc, with its enmeshed mud, settles, thus relieving the filters of some of their burden.

The removal of suspended matter alone does not insure clean boilers, although in the case of fairly soft turbid river waters clarification will help.

There are many clear, hard, well waters which form very heavy boiler deposits, and therefore it is necessary to remove dissolved matter, both gaseous and solid.

Gases dissolved in water do not offend so much by forming deposits as by causing objectionable tastes and odors for potable purposes and by causing corrosion when used for industrial purposes. Malodorous gases like H_2S can best be removed by aeration, which scrubs the objectionable gas out by trickling the water through an atmosphere free from that gas. This, of course, saturates the water with oxygen which does not reduce its corrosive properties.

To remove CO_2 and oxygen for boiler feed purposes where hot water is required anyway the heating of water by direct contact with steam is the simplest method. As long as such mixing or contact heaters are properly vented to remove the liberated gases and sufficient steam is employed to raise the temperature of the heated water always to the boiling point; the gases are sufficiently removed to protect boilers against corrosion. To protect steel tube economizers, a more perfect gas removal is necessary and special provision must be made for that purpose.

Distillation accomplishes water purification by evaporating it and then condensing the vapor to form distilled water. The vapor as it forms usually leaves behind most of the impurities present in the feed water. Care must be taken that the evaporators are blown down sufficiently and that they are not overloaded, so that the vapor does not entrain too much of the salines. Condenser leakages, whereby the hard cooling water leaks into the condensate, is also a source of contamination of the feed water, so that even evaporator installations may be found which do not keep boilers clean.

Distillation is mainly used on board ships because sea water contains so much sodium salt that there is no other method of water purification by which this salt can be removed. On land, distillation is usually too expensive to be considered in comparison with the other methods which can purify most waters successfully. Furthermore, it is only possible where the per cent of makeup is very small. The operating cost to supply the live steam used and the losses by radiation and leakage make it not only more costly to install but more expensive to operate.

Most industrial plants therefore purify their feed water by other methods, such as treatment with soluble reagents or with the insoluble reagent, zeolite. "Soluble Reagent Treatment," which is frequently called "Precipitation Methods," may be external to the boiler or internal.

Where internal, the reagent used is usually referred to as boiler compound.

A great variety of substances have been employed for this internal treatment. Among them may be mentioned soda ash, caustic soda, barium compounds, graphite, tannin, kerosene, slippery elm, glucose, etc. Proprietory secret compounds are usually made up of a mixture of one or more of these substances. In general, the action of the boiler compounds may be divided into two classes:

(1) The reduction of hardness by chemical reactions which is exemplified by the use of soda ash and caustic soda.

(2) The mechanical action on the scale with the intention of coating the grains to interfere with their close cementation. This is typified by the use of tannin, graphite, slippery elm.

The boiler compound advocate makes three claims: First, that the resultant precipitates form a sludge inside the boilers less compact than the scale formed by the hard water, and that therefore the first cost of investment in settling tanks and filters may be saved by using the boiler itself as a settling basin. Secondly, more accurate proportioning of the chemicals is accomplished than in precipitation plants. Third, boiler compounds save the loss of water wasted in washing filters and sludging off setting tanks of precipitation plants.

Precipitation water softeners embody the main principle of adding prescribed amounts of definite soluble chemicals, usually lime and soda ash, to react with the hardening compounds of the raw water.

There are two main divisions of precipitation plants, namely, intermittent and continuous. The former consists of two or more settling tanks, one filling and receiving its charge of chemicals, while the other is being used to deliver treated water to service. In this way each tank goes through a cycle of operations—filling, charging, agitating, quiescent settling and finally emptying. The continuous plants usually have one settling basin, and the water flows continuously from inlet to outlet, receiving the charge at the inlet, settling as it flows and after filtering leaves at the outlet completely treated.

Intermittent plants are preferred for the treatment of waters which vary in composition between wide limits, because the average composition of water in a full tank can be determined irrespective of the variations that may have taken place as the tank was being filled.

Some continuous plants have heaters ahead of the settling tanks and permit the reactions and settling to take place at boiling temperature. Although this gives a resulting effluent of lower hardness and a smaller settling tank is permissible because of more rapid reactions, the loss of heat by radiation from the settling tanks and filters and also by losing hot water in sludging off and washing of filters must be considered.

In the operation of precipitation plants, it is necessary to make a chemical analysis of the water to obtain the correct charge of lime and soda ash or other reagents to react with the varying composition of the raw water. Many water supplies are drawn from surface sources, such as rivers or ponds. The volume of water in these supplies varies with the seasons and with the rainfall. Sudden storms have been known to change the mineral content of a stream in a few hours. If too little chemical is added to the water the hardness is incompletely reduced and if too much chemical is added an objectionable amount of the excess of chemicals is left in the treated water. The addition of too great an excess of lime may even form a harder water than the original supply, since lime, besides being caustic, is also a form of hardness. The operator must therefore be alert and skilled to control the treatment properly.

Besides the need of skilled supervision to apportion the chemical dosage to suit the composition of the raw water, there are various mechanical problems to solve. Sludge disposal from the settling tanks frequently clogs sewers, and some city ordinances prohibit dumping sludge into sewers on this account. This frequently entails sludge collection in pits and removal by digging out periodically and carting away to disposal dumps. The mechanical problem also exists of feeding the chemicals at a rate in proportion to the rate of the raw water flow. This involves a form of meter for the water and a meter for the chemicals. Since the chemicals are usually fed in the form of a suspension of particles, or a "milk," the meter itself may become coated with the particles with the resultant change in the rate of chemical dosage. The complexity of this chemical feed

(Turn to page 104)

The ARCHITECT AND ENGINEER

SINCE 1905

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Honor Awards Educational

THAT the public learns a great deal about good architecture through the medium of "honor awards," such as have been sponsored by the Institute chapters in various Pacific Coast cities, there can be no question. The exhibitions have brought people to view pictures and plans of well designed buildings who otherwise would not have become interested. And, furthermore, the publication of the awards in The Architect and Engineer, and other publications has instilled an interest undreamed of. Calls for copies of numbers showing this work have been so numerous that the editions have been exhausted and in several instances architects have been asked to part with their own personal copies. This should be most gratifying to those who helped to put over these splendid educational efforts. For originating the plan, credit must go to the Southern California Chapter which established the award system several years ago, to be followed last year by programs in San Francisco, Seattle and Tacoma.

David J. Witmer, retiring president of the Los Angeles Chapter, in his annual address, spoke of the award system as follows: "It is undoubtedly the soundest, most far-reaching and effective means of improving our national architecture, and of bringing before the nation a consciousness of what is good in architecture that has ever been undertaken. It creates a proper vehicle for an effective publicity."

While the honor awards are no doubt an incentive to architects to put forth their best efforts, their greatest value is to the profession itself as a means of educating the public to an appreciation of good architecture. We believe the public inclination today is toward better design for the average building. Architecture of monumental buildings is generally of a high order and standards for this type of structures are well established in the public mind. But for the average building, standards of architecture are, so far as the public is concerned, rather vague. By this system of honor awards standards of architecture can be set up in practically every community so the public can have something on which to base its judgment and better inform itself as to just what constitutes good architecture.

No Dearth of Architects

A READER-architect calls the editor's attention to last month's editorial, headed "Doing Things on the Coast," and, while approving its subject matter, raises the question of possible misinterpretation of one sentence. "They read it not," he says, "as referring to your architecture for publication, but rather as an endless field of work and that you are welcoming all comers."

Such interpretation, of course, was not intended. The invitation to "join the fold" was to our contemporary architectural publications which were reminded of the wide range of good material on the Pacific Coast. While much has already been illustrated, there is still plenty to be had and in the making.

As to the opportunities on the Coast for newcomers, the architectural field is pretty well filled right now, and building conditions, being not much better here than elsewhere in the country, do not call for any considerable number of additions to our present architectural membership.

"Boiler Plate"

WARREN SKILLINGS, architect of San Jose, says he wishes something could be done to discourage publication in local newspapers of so-called "boiler plate" material, which consists mainly of designs and plans of uninteresting and anything but modern houses which may be suited to some sections of the

country but are not adaptable to California. These plans are furnished to a syndicate of newspapers throughout the country and are published by them simultaneously, usually in the weekly building section of the paper, regardless of whether they fit into climate and landscape or not. They are supposed to offer the prospective home builder helpful suggestions. If the designs are followed the builder usually comes to grief and the local architect who is trying to earn an honest living is deprived of a commission. It seems to us that the national body of the American Institute of Architects might interest itself in this matter to the extent of offering its services to these press organizations and furnishing them with designs and plans of houses appropriate to the section of the country in which they are published.

Views and Events

THE publishers purveying to the profession are falling into line and chanting the slogan "Bigger and Better Magazines." Competition is a good thing—for the subscribers.

The last of the architectural journals to discard the small format typical of the literary ones, The Architectural Record now appears on the nine by twelve inch page which has become the architectural standard. The Record half apologizes for changing to a size less convenient to the reader. On the other hand, the advantages for architectural illustration are obvious. To aspects of its new typography the Record points with a pride which is legitimate. Unquestionably its text page is the best composed of the architectural magazines. Unfortunately, the make-up of the plate section appears less satisfactory. Only the most rigorous uniformity in marking sizes of photographs can save this portion from a loose, neglected effect.

In the past the Record has almost been a sort of literary oasis among professional magazines —none has enlisted the co-operation of more writers with something to say. May the strain of the new format cause no easing up here!

* * * * *

NOW that the Record has brought up the subject of readers' convenience, it might be pointed out that, regardless of format, no magazine can be really agreeable to the hand which is bound through the side with wire staples instead of back sewed. However, I did not start out to write an essay on Utopia.

* * * * *

THE novelty of a two-volume magazine is presented by The Architectural Forum. Part one handles architectural design; part two, engineering and business; each part a respectable magazine in itself.

Well, this is not without advantages. When a magazine carries as much advertising as the Forum, it is easier on the reader not to have to hold it all at once. Besides, the number of crucial advertising pages is doubled — which may not mean much to the reader, but does to the business manager. As to furnishing two magazines-ful of worthwhile reading matter per month—well, of course it can be done; it only remains to wait and see if it is.

Meanwhile the new plates are printed on an excellent quality paper on which the halftones give most admirable results; and they enjoy the distinction which always comes from tint blocks.

* * * * *

BUT you don't have to go to New York for Bigger and Better Magazines. The Architect and Engineer itself also steps out with the rest. Some time ago we got bigger, since when the effort has gone into getting better. The January number began the series of frontispieces of Ford's etchings of the California missions, a set valuable alike from the artistic and documentary viewpoints. This month inaugurates two innovations which cannot fail to please readers sensitive to attractive appearance—ivory toned paper and a rag stock cover.

But keep an open eye; for of course it won't end at that.

* * * * *

EVERY now and then somebody interested in the arts draws up a list of the best or most beautiful examples in this or that department. These generally come in tens or hundreds, thus exemplifying the pervasive influence of a decimal notation. Creators of course do not create beautiful objects in round numbers; however, it probably catches the public fancy so to market them.

There are in general three objections to these lists. In the first place they are taken too seriously by their compilers. One thinks of tables

of the ten or hundred greatest books, dutifully including the Bible, Plato's Republic, Paradise Lost, Don Quixote, the Divine Comedy, Tom Jones, The Ring and the Book, and other items which we know the compiler has not read and would not enjoy if he did, but which he is ashamed to omit for fear of being considered ignorant or superficial. In other words, they represent not his real admirations, but those he thinks other people expect of him.

In the second place they are taken too seriously by their readers. People who never have or will read the books in question are imposed on by an assumed authority, and go through life troubled with an uneasy feeling that they should read them. Thus is perpetuated that corroding hypocrisy which makes lip service to prestige a bar to honest enjoyment.

In the third place stands the fallacious assumption that works of art should or even can be authoritatively graded. Spontaneous appreciation of a work for its own uniqueness becomes poisoned by the intellectual exercise of comparison and rating.

When I think of the vast numbers of masterpieces that exist in every field, this list-making affects me much as if I were confronted by an order of beans and a request to indicate the ten best ones on the plate.

* * * * *

THESE reflections follow on Mr. Charles H. Cheney's article in the January Architect and Engineer. "What Are the Ten Greatest Examples of American Architecture?" asks Mr. Cheney.

I was relieved to discover that he was not exploiting his own pet list. In fact, it seems to be a question of arriving at a sort of synthetic one by pooling suggestions from the greatest possible variety of sources. A list so made will have advantages over that of any individual (unless he be one of exceptional critical acumen, and comment on his list to boot). Only it should not be forgotten that a feature common to all the components from which a composite photograph is made will also characterize the result. If all, or most of the lists received are vitiated by the hypocrisy I have deplored, obviously the final one can be no more genuine or significant.

"The final exact word as to the greatest works of art," says Mr. Cheney, "will never be spoken. But it should be possible to set up a list at the end of this inquiry which will give something to measure by . . . . It is not necessary that everyone agree on a list of the greatest examples of art in the world. But once having established such a list . . . . it may serve as a starting point for comparison . . . ."

Good! But will the public that peruses it accept it thus tentatively and divested of dogmatic authority? Well, that is to be hoped. Meanwhile, whatever the list turns out to be, I shall probably feel inclined to counter with the question, Why are the ten greatest examples of American architecture?

* * * * *

I AM in receipt of an advertisement reading in part as follows—I delete references identifying the article: "It is with great pleasure that we introduce a product filling a long-felt want . . . . Made by the . . . . process, defects common in . . . . made hundreds of years ago are faithfully and naturally reproduced."

Here is a fruitful thought, relieving manufacturers of the exactions of a competent modern industrial technique. When the idea becomes general we may expect announcements of hardware, roofing, plumbing fixtures, electrical apparatus and what not, made by processes which faithfully reproduce defects common in these products before people really knew how to make them with precision. As Art Young's Poor Fish said, Progress is all right, but it ought to stop somewhere. Why should our affectation of antiquity not be frankly and consistently extended to the practical things of life as well as the trimmings? I. F. M.

VARIOUS METHODS OF WATER PURIFICATION

(Concluded from page 101)

problem, from the mechanical point of view, is evidenced by the many hundreds of devices that have been developed and patented to date.

This covers in general the methods of treatment employing soluble reagents as a means of softening. These means have their definite limits, for at best the soluble reagent apparatus provides a water containing considerable amounts of the reagents in addition to certain residual quantities of the original hardness. This hardness may amount to 4 or 5 grains per United States gallon in the cold and 2½ to 3 grains at boiling temperature.

Zeolite plants accomplish the removal of the

hardness by percolation of the water through a bed of zeolite material suitably supported and distributed in a container with piping and valves attached to properly distribute and control the flow of water. The hardness is removed from the water by the well known base exchange principle, the zeolite exchanging its sodium base for the calcium and magnesium bases in the water. A meter is provided to indicate when the softener has passed the quantity of water it was designed to soften. The zeolite bed is then automatically regenerated or revivified by passing a solution of salt (common brine) through the softener. The brine by a reverse exchange reaction gives its sodium base to the zeolite, and as it leaves the softener it carries with it in a clear solution the calcium and magnesium extracted from the zeolite. The zeolite is then rinsed free of brine and the softener is again thrown into service by opening the necessary valves.

THE PATIOS OF YESTERDAY AND TODAY

(Concluded from page 63)

before there is leisure for developing the purely cultural aspects of life. The Spanish Missions, their patios and enclosed gardens, therefore, reflect the conditions and necessities of life in the New World as the Mission Fathers found them.

The missions were built with great labor from the very earth, as it were. Architectural forms were essentially those of Spain, but the conditions of labor resulted in an elemental ruggedness, massive simplicity and elimination of color and refining ornamentation. Their works, while having a powerful appeal of their own, quite lacked the high and refined finish of those of the Old World. Every factor of protection, the heat reflecting and warmth holding values of the enclosed court and its walls, had to be considered and made the most of. The love of ornamental and flowering plants was inborn in the Padres, but they had little time to cultivate and tend the more delicate varieties. Consequently they planted those of hardier constitution and to a great extent plants of medicinal value, and trees yielding edible fruits or affording protection from the elements—other provisions for meeting practical exigencies of life in a wilderness.

With the extensive renaissance of Spanish architecture in California within the last two decades, we have sought the Mission Gardens and those of Spain for inspiration. In some cases, these sources have been duplicated outright; in others a spirit of experimentation and adaptation has been attempted, often it must be confessed, with most unhappy results. But as the situation now stands we have attained a fairly stable balance and art standards of our own upon which to base the evolution of architectural and garden craft principles, preserving the spirit of the original sources, yet peculiarly expressive of the present cultural, social and economic order.

This state of affairs makes the outlook of the patio in California both interesting and promising. In shape practically all patios are rectangular, and their size may be large or small, as the home of which they are a part is large or small. They may be designed as a terrace or balcony to afford a view of an outlying country. In planting design the symmetrical principle may be employed or equal beauty and effectiveness is found in maintaining good balance. In the symmetrical garden or patio the two halves are identical in the shape, size and position of the plants, trees and ornaments used. The garden of good balance, on the other hand, differs in its two halves, but the several focal points and plant groups are so arranged and located that there is a pleasing sense of balance and proportion in the composition. Which form to use is largely a matter of taste and the cue may readily be taken from the style and spirit of the home's architecture.

Without water a patio would scarcely be a patio. Pools, star shaped, five or eight sided or round, are located as central axial or terminating features. Wall fountains lend interest to otherwise blank stretches of wall. The size and design of pools and wall fountains should be carefully considered to make the best display of a small quantity of water and their scale should be worked out in relation to the size of the patio or garden, so that they will not be too large or too small. Vividly colored tile or painted frescoes are now extensively employed in pool and fountain construction. Statuary seldom finds a place in good patio design, but where it is present it should be subordinated. Numerous niches and bases will be found upon which to place pottery in gay or subdued tones as circumstances and good taste may dictate.

WITH the ARCHITECTS

MYRON HUNT HONORED

In recognition of a year of activity in civic affairs, Myron Hunt, distinguished architect of California, has been awarded the Arthur Noble medal—a mark of great honor conferred annually in the city of Pasadena for civic service. The ceremonies took place the evening of January 17 in the beautiful new library building of which Mr. Hunt is the architect and this fact lent added interest to the occasion. In his address, Dr. Leslie E. Leonard, rector of All-Saints Episcopal Church, paid tribute to the achievement of Mr. Hunt, spoke of the architectural progress that has marked the city of Pasadena since its earliest days, and stressed the ever-spreading favor for cultural things as a characteristic of its citizens.

In handing over the Noble medal to Mr. Hunt, Clayton R. Taylor, chairman of the Board of City Directors, stated that in receiving the award for doing his daily task, Mr. Hunt was making the significance of the medal more interesting. He believed that in the public library Mr. Hunt had created a thing that would appeal to generations yet to come.

In accepting the medal, Mr. Hunt paid high tribute to the many people who had been associated with him in the development of the library project.

BERKELEY ARCHITECT BUSY

Edwin Lewis Snyder, 2108 Addison street, Berkeley, has prepared plans and specifications for a Mediterranean type home of eleven rooms and four baths, to be built in Arlington Heights for Miss Helen Carrier.

Plans have also been completed by the same architect for a ten-room Spanish type residence in Arlington Villa Sites for Mr. Wilder Wight.

Plans have been completed and construction begun on an eight-room English type residence for Mr. B. M. Brown on Santa Barbara road.

Sketch plans have been approved and working drawings begun on a California Spanish type store building for Mr. Raymond Price. The estimated cost is $30,000.

Plans have been completed and construction begun on a six-room English type residence for Mr. F. C. Piatt in North Cragmont.

GRANTED CERTIFICATES

At a meeting of the California State Board of Architecture, January 31, the following were granted certificates to practice architecture: Leon D. Lockwood, 229 North Riverside avenue, Rialto, or 105 Montgomery street, San Francisco; Rollin S. Tuttle, 505 California building, Oakland; Eugene N. Maurer, 9 Ancha Vista lane, San Anselmo.

The following applicants were granted architects' certificates at the last meeting of the California State Board of Architecture, southern district: Clifford A. Balch, Film Exchange building, Washington street and Vermont avenue; Joseph Kaiser, 5849 South Van Ness avenue; Lloyd Wright, 858 Doheny drive; Frank D. Harrington, 6176 Pasadena avenue, all of Los Angeles.

RETURNS FROM EAST

Chester H. Miller, architect of Oakland, and member of the firm of Miller & Warnecke, recently made a flying trip east, visiting New York, Philadelphia, Washington and other cities. Mr. Miller arrived in New York the day that a terrific gale was blowing wires and signs down and he says he got an eyeful of real estate without paying anything for it. Ordinarily the price of Gotham land is almost prohibitive. Mr. Miller was glad to return to California where climatic conditions are more favorable in winter time.

LANGLEY & MICHAELS BUILDING

The Clinton Construction Company of San Francisco has been awarded a contract by Henry H. Meyers, architect in the Kohl building, San Francisco, for the construction of a three-story and basement Class B warehouse and office building at 9th and Castro streets, Oakland, for the Langley & Michaels Company. The elevator contract has been let to the Otis Elevator Company.

COMPETITION FOR REFRESHMENT STANDS

The second of a series of four competitions for the design of wayside refreshment stands has been announced. The objective is to improve the appearance of wayside refreshment stands which, through ugliness of conception and carelessness of construction, are beginning to menace the beauty of our highways. Five prizes are to be awarded ranging from $500 to $100. Drawings must be delivered to the Art Center, 65 East 56th street, New York by 5 p. m., March 15.

RALPH WYCKOFF BUSY

Ralph Wyckoff of San Jose has several important commissions which are expected to go forward in the early spring. One is a large residence in Los Gatos for Mr. L. F. Lenox, estimated to cost $40,000 and which will be in the English type of architecture. Another is a Spanish club building for the Hillview Country Club. A new hotel for Salinas is also being planned by Mr. Wyckoff.

OLYMPIC CLUB BUILDING

Plans are being revised by Messrs. John Baur and Arthur Brown Jr. for the Olympic Club's proposed new building at Post and Mason streets, San Francisco. It is probable that two floors will be added to the present five story structure, while the corner portion of the club's property at Post and Mason streets, will be covered with an entire new building of seven stories.

PASSING OF A. E. DOYLE, ARCHITECT

Albert E. Doyle, one of the best known architects in the Pacific Northwest, passed away January 23 at the Portland convalescent hospital, after an illness which became serious soon after his return from Europe. Mr. Doyle was 51 years old and a native of Santa Cruz, California.

The skyline of Portland's business district might almost be called a monument to Mr. Doyle, for many of the most prominently appearing of these structures are the product of his genius. His loss will be keenly felt in building circles of the Northwest.

Among the outstanding buildings designed by Mr. Doyle are the Central library, United States National Bank building, American Bank building, Meier & Frank Company building, Lipman, Wolfe & Company building, Selling, Pacific, Public Service, Terminal Sales buildings, Bank of California and Broadway theater.

In addition to his civic work on the planning commission he was a member of the board of regents of Reed College, director of the Portland Art Museum and an active member of the Portland Chamber of Commerce. He was also a member of the Arlington and Waverley Country Clubs.

The Portland Oregonian, speaking of Mr. Doyle's work and aspirations, paid him the following fine tribute in the issue of January 24:

"He dreamed of a city wherein would be no ugliness, no harshness of line, no incongruity of detail. He dreamed as the Greeks dreamed when they believed in beauty, and were serf to her. It was his thought and his faith that a harmony of structure must leave its genuine and grateful impress on the spirit of a people. He believed that accustomed beauty would ransom mankind in no small degree from many evils and errors that, at first glimpse, seem wholly unrelated to architectural expression. And he died while yet he was furthering his dream. But his work remains, and the dream shall go on."

EARL GREY PARKS

Earl Grey Parks, for many years associated with the architectural firm of Bebb & Gould, Seattle, Wash., died on January 5th. Mr. Parks located in Seattle in 1902 and since that time had been associated with Bebb & Gould. Mr. Parks was a member of the Arctic Club, the Young Men's Business Club, Arcana Lodge F. & A. M., all of the Scottish Rite Masonic bodies and of Nile Temple of the Shrine.

He was 45 years of age and a native of Colchester, Illinois.

HARVARD DEAN HERE

George H. Edgell, dean of the School of Architecture of Harvard University, visited the Stanford campus recently and was entertained at luncheon by Prof. A. B. Clark, head of the graphic art department. Dean Edgell expressed great admiration of the Stanford campus, saying that it made a strong bid for first position among the universities of the United States.

PERSONALS

ROLLIN S. TUTTLE, architect, announces removal of offices from 363 Seventeenth street to 505 California building, Oakland.

R. DE CHENNE, formerly associated with Jas. W. Plachek, Berkeley architect, has opened quarters at 4128 Gilbert street, Oakland, for the practice of architecture.

JOSEPH J. BLICK, architect of Pasadena, accompanied by his wife and daughter, recently sailed from San Francisco on the Dollar Line steamer "President Wilson," for a trip around the world. They will be gone six months, visiting the Orient, India, Egypt, the Holy Land and Europe.

QUINTON, CODE & HILL, consulting engineers of Los Angeles, have been retained by the city of San Diego as advisors in its water development problems.

SIDNEY T. ROGERS, architectural designer, has moved his office from 1813 Santa Monica boulevard, Beverly Hills, to 1200 North Ogden drive, Los Angeles.

S. S. KWAN, architectural advisor to the minister of the interior of China, and architect of the Pekin-Mukden Railroad Company, was the principal speaker at the weekly luncheon of the Architects League of Hollywood, January 18.

W. A. RICHMOND, civil engineer, has opened offices at 261 Davis street, San Leandro, and will engage in the practice of civil engineering and surveying. Previous to coming to San Leandro, Mr. Richmond was associated for ten years as assistant city engineer of Salt Lake City.

CHARLES H. LEE, San Francisco consulting engineer, has been retained by the Berkeley city council as consultant on the $500,000 storm sewer program about to be launched in that city.

WILLIAM OTIS RAIGUEL, who at one time was associated with John Galen Howard, has identified himself with the development of the Del Monte properties in Monterey county and will be in charge of the design and construction department of the company, making his headquarters at the Hotel Del Monte. Mr. Raiguel, prior to going to Del Monte was with Gladding, McBean & Company, Los Angeles.

SEXSMITH & WADE, architects and engineers, have moved their office from 814 Taft building to 6513 Hollywood boulevard, Hollywood.

MILTON M. FRIEDMAN has moved his office from 404 Detwiler building to 6001 Santa Monica boulevard, Hollywood.

HONOR FOR MR. M'CREA

George E. McCrea, architect of San Francisco, was recently awarded first prize for his clever handling of an alteration job in Santa Cruz. A small, old-fashioned house was given modern treatment, with garden beautification as an added improvement. Mr. McCrea has recently completed plans for a summer house at Carmel for Miss Ella M. Kellogg and he is revising plans for a large apartment building which he intends building for himself on Nob hill.

NEW ARCHITECTURAL HEAD

The regents of the University of Washington have recently appointed John Graham, who has been practicing architecture in Seattle for 28 years, head of the architectural department of the university to succeed Messrs. Bebb and Gould. Mr. Graham was born in Liverpool, England. He made his first visit to America in 1891. After about a year he returned to England and stayed for a while, then spent another year or so in Australia and after traveling around the world located permanently in Seattle in 1899.

During the years Mr. Graham has been in Seattle he has designed some of the outstanding buildings of the city, including the Frederick and Nelson building which was recently awarded honor place among the commercial buildings of Seattle by a committee of visiting architects; the Joshua Green building, Dexter Horton building, University Methodist church, Bank of California and Seattle Ford plant. When Henry Ford decided to erect assembly plants throughout the country he employed Mr. Graham to build them for him and as a consequence he spent several years in the different cities throughout the States and Canada.

The first university structure to be erected under Mr. Graham will be the Physics building, bids for which will be taken very soon. It will be of Tudor Gothic design which will harmonize with the style used by Bebb & Gould, the former University of Washington architects.

Mr. Graham served for one year as president of the Washington State Chapter of the American Institute of Architects, and two years as secretary.

NEW FENESTRA CATALOG

The new Fenestra Blue Book of steel windows is now in Sweet's architectural catalog. Complete specifications and details of Fenestra residential, architectural and industrial steel windows, operators, doors and partitions are covered by an 82-page Fenestra catalog, all embodied in the 1927-28 edition of Sweet's Volume A.

The only full catalog ever printed in Sweet's, this innovation by the Detroit Steel Products Company, gives the architect:

1—A complete catalog of steel sash details on which he can lay his hands at all times.

2—Assurance that details shown are up to date, as Sweet's is replaced by a new set of volumes each year.

3—A definite place for reference to Fenestra's local representative's address, since space is provided on the cover for the address and telephone number of the local office.

Fenestra is convinced that Sweet's is the best means of presenting and maintaining its blue book and drafting room standards in the offices of the architects and engineers.

Fenestra's Pacific Coast factory is located at Oakland. George P. Richardson is manager.

WILL MOVE MARCH 1

William E. Schirmer and associates announce that on March first they will move to new offices at 21st street and San Pablo avenue, Oakland, in the two-story brick building designed and recently completed under the direction of Mr. Schirmer. Several important commissions are keeping this office busy, including a $30,000 residence, a large apartment building and a number of small houses.

ARCHITECTS BAN WET LUMBER

The difficulty in obtaining seasoned lumber and the frequently deplorable results when green lumber is used are causing considerable dissatisfaction with wood construction on the Pacific coast, it is reported by trade extension engineers of the Western Division of the National Lumbermen's Association.

Many architects in Portland are reluctant to recommend wood construction because of the shrinkage which results from green timber, according to William D. Smith, of the Portland district office. One architect reports abandoning frame buildings because of the cracking of plaster, and trouble with fitting doors and sash, which, he says, is caused by the use of green lumber. Another states that while steel frame costs more and has to be fireproofed he thinks that the extra expense is well justified on account of the lack of shrinkage. It is alleged by several Portland architects that mills are furnishing wet lumber, which has a shrinkage of as high as 5 per cent.

Many like complaints have come from San Francisco and Los Angeles. Reuben W. Smith, of the San Francisco office of the National Lumbermen's Association, reports that one engineer who has had considerable difficulty because of the necessity of using partly seasoned timbers, is contemplating a switch to steel.

OPENS SAN FRANCISCO OFFICE

Brief announcement was made last month of the removal of Eldridge T. Spencer's Oakland office for the practice of architecture, to the Shreve building, San Francisco. Mr. Spencer will be pleased to receive trade literature and building material samples. He is at present engaged in preparing plans for a group of cottages to be built in the Yosemite Valley for the Curry Company. Mr. Spencer is a recent graduate of the Ecole des Beaux Arts and for the past year has practiced architecture in Oakland and Berkeley.

STUCCO APARTMENT BUILDINGS

Russell B. Coleman of Burlingame, who has temporary offices with Vogt & Davidson, has prepared plans for a $20,000 stucco apartment building for Lynn Miller. The location is El Camino Real, off of Broadway, Burlingame. Mr. Coleman has also made plans for a $10,000 residence in Baywood for J. T. Pierce of Burlingame.

HONOR FOR WOMAN ARCHITECT

A young Englishwoman of 29 has been named architect of the new Shakespeare Memorial theater at Stratford-on-Avon, England. The design of Elizabeth Scott, daughter of a Bournemouth doctor, was unanimously selected from more than seventy schemes submitted to the Anglo-American selection committee.

The MONTH'S MAGAZINES
Edited by Irving T. Morrow - Architect

This Department is edited primarily, not as a review and criticism of other magazines, but to inform readers of The Architect and Engineer of the contents of those which they may not regularly see. The tables of contents as given are therefore not necessarily complete. Matter deemed negligible has been omitted. Items preceded by an asterisk (*) are to some degree conspicuous for interest or merit. Matter preceded by the sign (†) has appeared in The Architect and Engineer. The editors' comments are in small type, indented.

THE AMERICAN ARCHITECT
December 20, 1927

TEXT

An Architectural Oasis. By *Alfred Granger.*

An account, with photographs, of Kenyon College at Gambier, Ohio.

Broadway in the Cotswolds. By *Samuel Chamberlain.* Sketches by the author.

Music Expressed in Architecture.

Design of pianos, talking machines and radios discussed and illustrated.

"Small-Town Stuff." By *Paul W. Copeland.*

Anyone who has had anything to do with small stores will realize that to discuss them with good humor is indeed a test of disposition.

The Painting and Coloring of Concrete. By *W. E. Hart and Raymond Wilson.*

Adhesion of Plaster and Stucco to Hollow Clay Building Tile. By *J. A. Murray and H. D. Foster.*

Index, Volume CXXXII, July-December, 1927.

PLATES

Municipal Building, Brooklyn, N. Y. *Voorhees, Gmelin & Walker, Architects.* (3 plates.)

Olivet Institute, Chicago, Ill. *Perkins, Fellows & Hamilton, Architects.* (2 photographs, plans and details.)

*Proposed Lincoln Memorial in Southern Indiana. *Thomas Hibben, Architect.* (1 plate and plan.)

Bush House, London. *Helmle, Corbett & Harrison, Architects.*

St. Thomas Church, Detroit, Mich. *Van Leyen, Schilling & Keough, Architects and Engineers.* (4 photographs and plan.)

House, Mr. John H. McCawley, St. Louis Co., Mo. *Beverly T. Nelson, Architect.* (1 plate and plan.)

House, Riverdale, N. Y. *Dwight James Baum, Architect.*

*House, Mr. Harold McNulty, Silver Mines Colony, Conn. *Hugo & Jugo, Architects.*

Arcaded Facades. (4 plates in supplement.)

THE AMERICAN ARCHITECT
January 5, 1928

TEXT

*American Architecture Since the War. By *C. H. Blackall.*

A Modern Style of Interior Design.

Dyche Stadium, Northwestern University, Evanston, Ill. *James Gamble Rogers, Architect; Gavin Hadden, Engineer.*

The Use of Welding for Fabricating Roof Trusses. By *William Dalton.*

Fireproof Formless Floor Construction. By *Frank Eroskey.*

PLATES

Building for Pennsylvania Power & Light Co., Allentown, Pa. *Helmle, Corbett & Harrison, Architects.* (1 plate and detail.)

Building for National Radiator Company, London, England. *Raymond Hood, Architect; Gordon Jeeves, Resident Architect.* (3 plates.)

Store Front, Boston, Mass. *Strickland, Blodget & Law, Architects.*

Apartment House, New York. *John Mead Howells and Raymond Hood, Architects.*

Progressive Studies for an Architectural Design. By *Thomas Hibben, Architect.* (7 pages of sketches, with article.)

Memorial Auditorium, Pratt Institute, Brooklyn, N. Y. *John Mead Howells, Architect.* (5 photographs and elevation.)

*Apartment Hotel, New York. *Thompson & Churchill, Architects.* (2 plates.)

*New York Furniture Exchange, New York. *Buchman & Kahn, Architects.* (2 plates.)

House, Mr. Philip J. Dwight. *Alfred Easton Poor, Architect.* (Photograph and plan.)

American Church Cupolas. (4 plates in supplement.)

THE ARCHITECT
January, 1928

TEXT

Thomas Jefferson, the Architect. By *Rexford Newcomb.*

*An Outline of Architecture. By *George S. Chappell.*

The Social Contacts of Architecture. By *J. S. Warren.*

PLATES

*Bankers Trust Co., Hartford, Conn. *F. W. Brooks, Architect; F. D. W. Glazier, Associate.* (6 plates, plan and descriptive article.)

Fogg Art Museum, Harvard University. *Coolidge, Shepley, Bulfinch & Abbott, Architects.* (5 plates and plans.)

Levi F. Warren Junior High School, West Newton, Mass. *Ripley & Le Boutillier, Architects.* (4 plates and plans.)

McKinlock Hall, Harvard University. *Coolidge, Shepley, Bulfinch & Abbott, Architects.* (3 plates.)

House, Mr. Grosvenor Atterbury, L. I. *Grosvenor Atterbury, Architect.* (3 plates.)

"Wychwood," House, Mr. W. Pope Barney, Wallingford, Pa. *Davis, Dunlap & Barney, Architects.* (4 plates and plan.)

Memorial Auditorium, Pratt Institute, Brooklyn, N. Y. *John Mead Howells, Architect.* (3 plates and plans.)

Bedford Town House, Bedford Hills, N. J. *Benjamin Wistar Morris, Architect.* (2 plates and plan.)

THE ARCHITECTURAL FORUM
January, 1928

(*See Views and Events*)

TEXT

*A New Architecture. By *Ralph T. Walker.*

Office Buildings of Today and Tomorrow.

The Digressionists.

*Insulation for Residences. By *Gordon B. Wilkes.*

*The Proper Use of Lacquer.

*Structural Steel for Ordinary Use. By *Frank W. Skinner.*

Principles of Economic Plumbing Layouts. By *Milford B. Squire.*

Architectural Service from the Business Point of View. By *C. Stanley Taylor.*

Present Status of Co-operative Apartment Promotion and Finance. By *Louis G. Kibbe.*

Can the Architect Serve the Speculative Builder? By *George F. Root, 3rd.*

Housing—The Responsibility of the Building Industry. By *John Taylor Boyd Jr.*

Simplifying the Writing of Specifications. By *Charles E. Krahmer.*

Time Saving in the Office. By *E. R. Duckering.*

The Standardization of Building Costs. By *Rudolph P. Miller.*

A Business Course in an Architectural School? By *William A. Boring.*

PLATES

*Study for a Fresco. By *J. Franklin Whitman Jr.* (in color).

*Commercial Buildings in New York. By *Buchman & Kahn, Architects.* (6 plates.)

New York Life Insurance Building, New York. *Cass Gilbert, Architect.* (1 plate.)

Reformed Church, Bronxville, N. Y. *Harry Leslie Walker, Architect.* (8 plates, photographs, plan, details and article.)

*House at Purchase, N. Y. *Leigh French Jr., Architect.* (8 plates, photographs, details and article.)

Pavilions in the Air. (14 photographs.)

Turret and lantern terminations of New York skyscrapers.

Second Common Brick House Competition. (Photographs and plans of 16 entrys, including awarded designs.)

Boodles Club, London. Part II. (Photograph and 6 plates of measured details.)

THE ARCHITECTURAL RECORD

January, 1928

(*See Views and Events*)

TEXT

*In the Cause of Architecture. I. The Logic of the Plan. By *Frank Lloyd Wright.*

The Art of Commercial Display, Part I. By *John Taylor Boyd Jr.*

PLATES

Sketch for Mural Painting. By *Edward Trumbull* (in color).

Fidelity Mutual Life Insurance Company Building, Philadelphia, Pa. *Zantzinger, Borie & Medary, Architects.* (Photographs, plans and article.)

Views of New York City. 15 plates, of which the outstanding is—

*The Columbia-Presbyterian Medical Center, New York. *James Gamble Rogers, Architect.*

*Swimming Pool at Overbrook, Pa. *John Irwin Bright and Harry Sternfeld, Associated Architects.* (Photographs and article.)

ARCHITECTURE

January, 1928

TEXT

On Ensnaring the Volute.

*Selecting Materials for the New York Telephone Building. By *R. T. Walker.*

Is the Architect a Special Problem? By *G. Meredith Musick.*

PLATES

*The Detroit Institute of Arts. *Paul P. Cret and Zantzinger, Borie & Medary, Architects.* (12 photographs, plan, detail studies and article.)

No architectural magazine should print photographs without crediting the architect's name on each, if only for the practical reason that architects often dismember magazines and file the plates.

Liberty's, London. (8 photographs.)

House, Mr. M. Lloyd Frank, Portland, Ore. *Herman Brookman, Architect.* (12 photographs and plans.)

House, Colonel Sam Tate, Tate, Ga. *Walker & Weeks, Architects.* (9 photographs.)

Two Etchings by *Philip H. Giddens.*

State Bank and Trust Co., Evanston, Ill. *Childs & Smith, Architects.* (10 photographs and plans.)

Built-in Bookcases (35 photographs).

PACIFIC COAST ARCHITECT

January, 1928

TEXT

The Architecture of the Moving Picture. By *Zoe A. Battu.*

A Noteworthy Land Development. By *Allan E. Tomblin.*

The Bel-Air tract near Los Angeles.

Old Iron.

Big Cities Begin Building Code Work. By *Mark Cohn.*

PLATES

Administration Building, Bel-Air, Calif. *Designed by Mark Daniels.* (12 plates.)

*Bel-Air Country Club. *Carleton Monroe Winslow, Architect.* (9 photographs.)

*House, Mr. Alexander Curlett, Bel-Air, Calif. *Alexander Curlett, Architect.* (5 photographs.)

PENCIL POINTS

January, 1928

A Lesson From the Drawings of Ralph Calder.

Between Drafts. By *C. Ralph Bennett.*

Stone and the Draftsman, I. By *Marion Davidson.*

Competition for Beaux-Arts Institute of Design Building, New York. By *Francis S. Swales.*

Two Documents Prepared by Architects for the Information of Owners.

Specifications for the Contractors. By *Louis Z. Slawter.*

Drawings in various media, including two in color.

HONOR FOR H. J. BRUNNIER

H. J. Brunnier, consulting engineer of San Francisco, has been chosen president of the California State Automobile Association, an honor which has been conferred upon him in recognition of splendid service which he has rendered the organization as a director. Mr. Brunnier is prominent in civic, industrial and fraternal affairs of the San Francisco Bay region and was structural engineer on four of San Francisco's largest skyscrapers—the Russ, Hunter-Dulin, Standard Oil and Commercial Union buildings.

Mr. Brunnier is vice-chairman of the traffic survey committee, director of the American Automobile Association, past president of the Pacific Association of Consulting Engineers and a Rotarian. His offices are in the Sharon building, San Francisco.

SOCIETY and CLUB MEETINGS

SAN FRANCISCO CHAPTER A. I. A.

The regular meeting of the Northern California Chapter, A. I. A., was held at the Mark Hopkins hotel on January 31. The meeting was called to order by President Allen, the following members being present:

G. F. Ashley
Wm. Clement Ambrose
Harris Allen
A. Appleton
Geo. A. Applegarth
John Bakewell Jr.
Earle B. Bertz
Morris M. Bruce
Ernest Coxhead
W. H. Crim Jr.
Jas. S. Dean
John J. Donovan
Albert J. Evers
W. B. Farlow
Wm. I. Garren
Henry H. Gutterson
Lewis P. Hobart
Samuel Lightner Hyman
Lester W. Hurd
Raymond W. Jeans
Chas. F. Masten
Chas. F. Maury
James Mitchell
Geo. B. McDougall
A. McF. McSweeney
Fred H. Meyer
William Mooser
L. C. Mullgardt
E. L. Norberg
Harris Osborn
James W. Plachek
T. L. Pflueger
Albert Schroepfer
Roland I. Stringham
Ralph Wyckoff

Guests present were as follows:

N. A. Eckart, American Society of Civil Engineers; Walter L. Huber and A. H. Wilhelm, members Advisory Board to Department of Building Inspection of San Francisco; Arthur P. Denton, Portland Cement Association; R. H. Stevenson, Home Builders Association; A. C. Horner, National Lumber Manufacturers Association; Chas. H. Sawyer, Bureau of Architecture of San Francisco; James S. Cole, Clay Products Industries; W. C. Thieleman, California Reinforcing Institute; John A. Sullivan, San Francisco Real Estate Board; S. P. Koch, Pacific Coast Building Officials Conference.

The speakers were Messrs. Myron Hunt, J. E. Mackie, Fred H. Meyer, P. A. Pflueger, Chris H. Snyder and P. J. Walker.

Austin Sperry of San Francisco and Austin Whittlesey, a Southern California architect, were also present.

The secretary presented the report of the auditing committee, approving the accounts of the chapter for the fiscal year, to October 1, 1927. The report was received and placed on file.

The secretary reported receipt of a total of $351 from the former San Francisco Society of Architects. The thanks of the Chapter are due to Messrs. W. C. Hays and H. H. Gutterson for their continued effort to obtain this for the education fund.

The resignations of William Arthur Newman, Chapter member and C. E. Perry, Institute member, were reported as having been received with regret by the Board of Directors.

The secretary reported that the following Institute members had been added to the Chapter roll: Messrs. Warren C. Perry, Roland I. Stringham, Frederick H. Reimers, George Klinkhardt and Erle J. Osborne. Also, the following associates: Messrs. Harris Osborn and Ellsworth Johnson.

The appointment by President Allen of the following members of the standing committees for the year was announced and ordered published:

Practice—Morris M. Bruce, chairman; Will G. Corlett, Ernest Coxhead, Arthur Brown Jr.
Legislation and Code—Frederick H. Meyer, chairman; Albert J. Evers.
Relations With Coast Chapters—John J. Donovan, chairman; Harris Allen, Jas. S. Dean, G. F. Ashley.
Public Information and Entertainment—Executive committee.
Membership—Henry H. Gutterson, chairman; Albert J. Evers, Edgar B. Hurt, Chas. F. Dean, Jas. H. Mitchell.
Education and Library—Warren C. Perry, chairman; Wm. C. Hays, Chas. Peter Weeks, Arthur Brown Jr.
Competitions—Wm. C. Hays, chairman; Geo. W. Kelham, J. Harry Blohme, Chester H. Miller.
City Planning and Civic Improvements—John Reid Jr., chairman; G. F. Ashley, Ernest Coxhead, J. S. Fairweather, John Bakewell Jr.
Industrial Relations—Henry H. Meyers, chairman; Earle B. Bertz, W. H. Crim Jr., E. H. Hildebrand.
Exhibition and Honor Award—Earle B. Bertz, chairman; Morris M. Bruce, Henry H. Gutterson, Raymond W. Jeans, Harris Allen.

A written report of the progress of the special committee on drafting room and office standards was presented and a copy placed before each of those attending.

The Chapter was fortunate in having present Myron Hunt, regional director. Mr. Hunt gave a report on procedure of the Institute directors' meeting, which he recently attended in Washington, D. C. Later, Mr. Hunt related some of his experiences with earthquake destruction in Santa Barbara.

A discussion of the building code and building inspection followed and the Chapter was addressed by the following:

J. E. Mackie of Long Beach, secretary of the Pacific Coast Building Officials Conference; Paul A. Pflueger, chairman of the earthquake insurance committee of the California State Bankers Association; P. J. Walker, representing the contractors; C. H. Snyder, well known San Francisco engineer, and Fred H. Meyer, architect.

The following resolution was presented from the floor and unanimously passed:

"That the following letter be sent to the Board of Public Works of San Francisco:

It was the sense of a meeting held January 31, 1928, by the Northern California Chapter of the American Institute of Architects, at which were present representatives of various building and property interests, including banking, real estate, engineering, manufacturing, contracting and inspecting, that your honorable board be heartily congratulated upon the appointment of an advisory board of building experts to assist in drawing up a new building code for San Francisco; therefore insuring a wise, adequate and sane solution of the very important and complicated problems connected with a modern building code for a great city. The accomplishment of this task will be received with keen satisfaction by all the interests concerned.

WASHINGTON STATE CHAPTER

The members of the Washington State Chapter assembled for the thirty-third annual meeting at the Olympic hotel, Seattle, Saturday afternoon, January 14, the meeting being called to order at 2:15 by President Thomas. The minutes of the last regular meeting were read and approved. The president's address was covered with a few well chosen words referring to the general scope of Institute and Chapter activity. He thanked the members for the support they had given him during his term of office.

The secretary followed with an able report covering the work done by the Chapter during the year. Eight regular meetings and three special meetings had been held with an average attendance slightly greater than last year. The Chapter had, during the year, gained seven Institute members and four new associates. It had lost five members, making a net gain of two in its membership, and there were six applications pending. The executive committee had held 52 meetings during the year.

The treasurer's report was presented with thoroughness and completeness. The total receipts were $4,088.19, of which $675.05 were from the special fund.

The next order of business being the election of offi-

cers for the ensuing year, the report of the nominating committee was presented by the chairman, Mr. Albertson, and the secretary, having reported that no other nominations had been submitted, it was voted that the ballot of the Chapter be cast for the nominees of the committee and these were declared elected as follows:

President, Sherwood D. Ford; first vice-president, F. A. Naramore; second vice-president, Herbert A. Bell; third vice-president, G. Albin Pehrson; secretary, J. Lister Holmes; treasurer, A. M. Allen; member of the executive committee for three years, Clyde Grainger.

On the president announcing that new business would be considered, Mr. Borhek read a communication from Mrs. Gue of Santa Barbara, California, advocating an organization for promoting the appreciation of architecture by establishing architectural exhibits in the libraries and schools throughout the country, the expense to be provided for by subscriptions from the different material industries. After a suggestion from Mr. Albertson that the attitude of the Institute Board on this matter be ascertained, it was voted that a committee be appointed to take this matter up with the Pacific Coast cities and report to the Chapter at a later date.

A vote of thanks was extended to the editor for the efficient manner in which the Bulletin had been conducted.

A letter was read from the Oregon Chapter inviting the Chapter to a joint meeting to be held at Longview, Washington.

The members of the Chapter reassembled at the Olympic hotel at 7 o'clock with their wives and guests for the dinner and entertainment which was to conclude the annual meeting. The committee in charge had announced that it was to be an "Oriental Night," in contrast to last year when the Italian Renaissance was featured in the program and decorations.

SOUTHERN CALIFORNIA CHAPTER

The Southern California Chapter celebrated its thirty-third birthday as guest of the new Ebell Club. Sumner Hunt and Silas Burns, the architects of the building, had arranged a most delightful program for the members and their wives.

An inspection of the building was first on the program and proved most inspiring. Hunt and Burns have handled a difficult building site in a masterful manner and have sacrificed nothing in convenience while at the same time preserving the privacy and dignity so vital to a building of this character.

The meeting was followed by a one-act fantasy "The Melancholy Pierrot," given by the students from the School of Architecture at U. S. C.

Reviewing Chapter activities for the year President Witmer presented an impressive resume of accomplishments. Speaking of the School of Architecture at U. S. C., President Witmer said:

"May I, however, for a moment direct your attention upon this School of Architecture—the only university school for our profession in Southern California. It is young in years, young in its record of achievement through its comparatively few and relatively recent graduates. Yet the record of progress is great.

"Within four or five years this school has more than tripled in enrollment, has emerged from a minor department of the university into the entity and importance of a school. The school is providing a splendid course of instruction, and today is most creditably preparing young people who enter to pursue their chosen profession."

Concerning the activities of members in civic and national affairs, he said:

"Rarely is one Chapter of the Institute honored by selection contemporaneously of two of its members for directorship on the National Board. The 1927 convention elected Myron Hunt director for three years. With the re-election of Edwin Bergstrom as treasurer, this Chapter is assured of the most able presentation to the Institute of Chapter opinion. Other honors and opportunity for service have come to other members. Donald Parkinson has been appointed by the Mayor to the Art Commission of the city of Los Angeles, filling the vacancy caused by the death of Arthur Benton. Through the nomination of the Chapter, David C. Allison has been re-elected for another term on the Palos Verdes Art Commission of the City of Los Angeles, filling the fill a vacancy on the State Housing Commission."

S. F. ARCHITECTURAL CLUB

The new administration has begun to function in a manner that means progress. Every effort will be bent towards making the club a factor in the life of the community. Instead of one or two members doing all the thinking all of the members are going to be enlisted in some manner so as to make the club pull together 100 per cent. President Keyser is the man that can and will hold the members together so that they act as one man in putting over the most progressive era the club has seen to date.

All committees will be changed in June instead of January as has been the custom in the past.

To centralize control of club work, each director of the club shall be personally responsible for some committee and it is up to him to see that the chairman of his committee is on his mettle until relieved of his duties.

Due to the number of educational features organized in the club it has been found necessary to have them function in a uniform manner. To accomplish this, a jury of three will pass on and grade all class work.

At a business meeting, held February 1, President Lawrence Keyser announced the committees as follows: entertainment committee, Ira Springer; class, Robert Nordin; house, Ed DeMartini; library, Henry D. Kensit; publicity, Robert Nordin; special, Bertel Lund, Massier of Atelier.

The president called on the members to support the classes as they were organized, for their benefit and advancement.

The entertainment chairman announced that a theater party will be held in April and a picnic in May. The chairman of the class committee announced that an

outdoor sketch class will be formed to supplement the water color rendering class as soon as sufficient members sign up with Mr. Ruegg.

The Special Atelier Committee Chairman reported that the members of the Atelier were receiving high marks on the Beaux Arts problems.

C. J. Sly, head of the engineering class and Al Williams, who has charge of the architectural detail class, held a debate on the whereas and therefores of the popularity of their respective classes. The decision handed down by the referee was that while both could and did tell marvelous stories, it was due to their excellent ability as instructors that made the classes interesting.

LOS ANGELES ARCHITECTURAL CLUB

The January meeting of the Los Angeles Architectural Club was held at the University Club, January 24, 1928. As a result of the election the following officers were installed for the year 1928:

George P. Hales, president; Hugo Oltsch, vice-president; Raymond Wyatt, secretary; Kemper Nomland, treasurer.

Many interesting topics were discussed, among them the Venetian Carnival which was held on Friday, February 3 at the Roosevelt Hotel, Hollywood. The event was a memorable one not only for Architectural Club members but for the Southern California Chapter, A. I. A., and the Hollywood League of Architects.

The matter of an allied fine arts exhibit was also discussed and a committee was appointed to co-operate with the Hollywood League of Architects, at their invitation, in making arrangements for such an exhibit.

MONUMENTAL LIGHTHOUSE

Definite steps have just been taken toward the consummation of the plan to honor the memory of Christopher Columbus by the erection of a monumental lighthouse at the City of Santo Domingo, capital of the Dominican Republic.

Pursuant to a resolution adopted at the Fifth Pan-American Conference, which met at Santiago, Chile, in 1923, the governing board of the Pan-American Union appointed a permanent committee on the Columbus lighthouse, composed of the Ambassador of Argentina, Hon. Honorio Pueyrredón, the Minister of Honduras, Hon. Luis Bográn and the Minister of the Dominican Republic, Hon. Angel Morales. This committee appointed as technical adviser, Mr. Albert Kelsey, one of the architects of the Pan-American Building. Mr. Kelsey was authorized to proceed to Santo Domingo for the purpose of selecting the site, to study the situation and to write the competition program.

The permanent committee has just approved the program that will govern this competition, which will be open to the architects of the world. It will be conducted in accordance with the rules of the American Institute of Architects. There will be a preliminary and final competition judged by an international jury, which will meet first in Europe, preferably in Madrid, and in some South American city to be selected later. Fifty thousand dollars will be distributed in prizes.

The international jury will meet for the first judgment, preferably in Madrid, and will award ten first prizes of $2000 each, and ten honorable mentions of $500 each.

The jury will meet for the final judgment in some Latin American city, and will award $10,000 as a payment on account of his commission to the winner, within thirty days; also the design placed second will receive $7500, the design placed third $5000, the design placed fourth $2500. Each of the other ten competitors will receive $1000.

Should actual work on the lighthouse not start within five years, the winner will then be paid $15,000 additional, thus terminating the transaction.

Public exhibitions of the designs submitted in both contests will be held under the auspices of the highest local authorities, and traveling exhibitions of many of the designs will be shown in a number of the principal cities of Europe and America.

Architects who propose to compete are requested to register at once, and state whether they desire a program in English, Spanish or French. Applications should be addressed to Albert Kelsey in care of the Pan-American Union, Washington, D. C.

THE PROGRESS OF ART

According to the American Art Annual for 1927, Vol. XXIV, just issued by the American Federation of Arts, gifts of money totaling almost $19,000,000 were made to art museums, educational institutions and communities for the advancement of art in its many phases since 1925. In addition there were gifts and bequests of buildings and collections valued at many times that sum. To mention but one of these gifts, the Henry E. Huntington collection of British masterpieces, his library and buildings to house them, left to the state of California, is valued at $50,000,000.

A record was established for building activities by art museums and schools during the year, with the opening of new buildings, wings or galleries by 16 institutions. Twelve notable war memorials, predominantly sculptural, were completed or dedicated during the year, as well as more than 40 other works in sculpture.

Kentucky, one of the few states without an art museum, until 1927, joined the majority during the year, with the opening of the J. B. Speed Memorial Museum, in Louisville. Thirty-five states now have one or more museums and galleries of art. Every state in the Union has one or more art associations or societies, including Nevada, in which one was organized for the first time last year. Arizona, Nevada and Wyoming are the only states which have no schools of art. In 45 states, it is possible for students to obtain instruction in one or more schools, a remarkable record when one recalls that prior to 1860, only New York City and Philadelphia possessed art schools of importance.

ANNUAL EXHIBITION

The Architects' League of Hollywood will hold its annual architectural exhibition at the California Art Club on Olive Hill, March 13 to 18, inclusive.

BOOK REVIEWS

By Edgar A. Kierulff

THE A. B. C. OF PLASTERING, by A. H. Telling, with an introduction by T. P. Bennett. Oxford University Press, American Branch, New York, N. Y. Price, $2.85.

This is an excellent book devoted to the art of plastering and plastering is indeed becoming an art. The book is well illustrated by drawings rendered in a clear and concise way and contains an introduction prefatory note, a chapter "Mainly Historical." The technique of plastering and a specimen syllabus and examination paper are included. I cannot but feel, even after a cursory examination of this book, that it will be highly appreciated by architects, contractors and students.

THE ESSENCE OF ARCHITECTURE, by William Roger Greeley. D. Van Nostrand Company, New York, N. Y. Price, $2.85.

One of the most delightful small books that has come to my hands for review, beautifully and profusely illustrated with excellent photographs, written in a simple and understanding manner, it makes good reading and carries a thoughtful message. Some of the chapters include topics such as, The Arts, The Five Arts, Architecture, The Background, Architectural Personality, Unity, Proportion, The Picturesque. Any American architect should find this little book a delight and an inspiration.

ARCHITECTURAL DESIGN IN CONCRETE, by T. P. Bennett, Fellow Royal Institute of British Architects. Published by Oxford University Press, American Branch, New York City. Price $10.

An extremely interesting set of views depicting recent construction with concrete. The plates show various types of buildings in England, France and Germany, as well as several photographs of concrete structures in California (all of which have been shown in The Architect and Engineer) and a bridge at Spokane, Washington.

The types shown in Germany and France are buildings little seen elsewhere outside of these two countries and are of the very advanced modern school. Indeed, they are the results of a striving to attain an absolute departure from the old school. This is especially true of the Church of St. Dennis on pages 28 and 29, and the church at Le Raincy on pages 24, 25, 26 and 27.

The buildings at Wembley, England, and the industrial buildings and bridges in Sweden show an inclination towards this new school type of architecture. Architectural Design in Concrete is an excellent reference book, well compiled and intelligently thought out.

STEEL COMPANIES ARE ACTIVE

Two announcements of interest to the Pacific Coast steel industry were made in the early part of the month. One was the purchase of the Central Iron Works by McClintic-Marshall Company of Pittsburgh. The Central Iron Works was one of the oldest steel fabricators in San Francisco, having been established for more than a quarter century. A. A. Devoto was its president.

The other announcement was the merger of the Pacific Rolling Mill Company and the Judson Manufacturing Company. Here a combination of two of the largest and strongest steel and iron shops on the coast was effected and, commencing the first of February, the business of the two companies became operative under the consolidated name of Judson-Pacific Company.

The officers of the new company, whose sales offices for the time being are at 604 Mission street, San Francisco, with plants in San Francisco and Oakland, are: Carlos J. Maas, president; E. B. Noble, vice-president and treasurer; A. E. Wilkins, vice-president and general manager; P. F. Gillespie, vice-president in charge of sales, and H. F. Hedricks, general superintendent.

The new company has been fortunate in securing the services as its chief engineer of E. O. Burgess, one of the best known consulting engineers on the Pacific Coast.

The properties involved in the merger include approximately eight acres at Emeryville and three acres at Seventeenth and Mississippi streets, San Francisco.

The combined capacity of the Judson-Pacific plant will approximate 25,000 tons per year, and will constitute the largest steel fabricating concern in the West. About $2,000,000 of property and equipment values are involved in the transaction.

A WORK OF ART

ATLEE B. AYRES
ROBERT M. AYRES

The Architect and Engineer,
San Francisco, Cal.
Gentlemen:

Your letter received this morning and this afternoon the January issue came. It is certainly a work of art. The coated paper brings out your unusually good cuts to such an extent that they really look like photographs. As I wrote you before, your publication contains not only splendid illustrations, but lots and lots of good articles. Want to thank you very much for using our pictures. Please send me 30 copies of this January issue. Wishing you continued success, I am, yours truly,

ATLEE B. AYRES.

San Antonio, Texas.
January 23, 1928.

BEST IN HAWAIIAN ISLANDS

Editor The Architect and Engineer:

Enclosed please find money order for three dollars ($3.00) for one year's subscription to The Architect and Engineer. Again allow me to compliment you, as an old subscriber, on your ever improving magazine. Here on the Islands it now ranks Number 1 amongst architectural publications. Yours truly,

EARL J. STEPHENSON.

408 Damon building, Honolulu, T. H.

MEMORIALS IN GRANITE—Published by the Raymond Granite Company, San Francisco and Los Angeles. Contains a number of beautiful illustrations of private mausoleums, all built of Raymond granite, together with text matter descriptive of mortuary and other structures.

Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

The wage scale is that in effect January 1, 1928, for a period of one year. Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
Common, $33 to $35 per 1000 laid.
Face, $100 per 1000 laid.
Brick Steps, using pressed brick, $1.10 lin. ft.
Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
Brick Veneer on frame buildings, 70c sq. ft.
Enamel, $120.00 per 1000 f.o.b. cars.
Common, f.o.b. cars, $13.50, plus cartage.
Face, f.o.b. cars, $48.00 per 1000, carload lots.

HOLLOW TILE PIREPROOFING (f. o. b. cars in carload lots).

3x12x12 in.	$ 96.00 per M
4x12x12 in.	108.00 per M
6x12x12 in.	156.00 per M
8x12x12 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f. o. b. cars in carload lots).

8x12x5½	$100.00
6x12x5½	74.00

Hod carriers, $7.00 per day.
Bricklayers, $11.00 per day.

Composition Floors — 18c to 50c per sq. ft. In large quantities, 18c per sq. ft. laid.
Rubber Tile—70c per sq. ft.

Terazzo Floors—60c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.30 per ton
No. 4 rock, at bunkers	1.30 per ton
Niles pea gravel, at bnkrs.	2.70 per ton
Washed gravel, at bnkrs.	1.40 per ton
Niles top gravel, at bnkrs.	1.50 per ton
City gravel, at bunkers	1.30 per ton
River sand, at bunkers	1.15 per ton
Delivered bank sand	1.00 cu. yd.

SAND
Del Monte, $1.75 to $3.00 per ton.
Pan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
Belgian cement, $2.30 per bbl.
Cement, $2.51 per bbl. in paper sks.
Cement (f.o.b. Job, S.F.), $2.71 per bbl.
Cement (f.o.b. Job, Oak.), $2.71 per bbl.
Rebate of 10 cents bbl. Cash in 15 days.
Atlas "White" .....$ 8.75 per bbl.
Forms. Labors average 25.00 per M
Average cost of concrete in place, exclusive of forms, 30c per cu. ft.
4-inch concrete basement floor.....13c to 14c per sq. ft.
4½-inch concrete basement floor.....14c to 15c per sq. ft.
2-inch rat-proofing....6½c per sq. ft.
Concrete Steps.....$1.26 per lin. ft.
Wage—

Concrete workers	$5.50 per day
Cement finishers	9.00 per day
Laborers	5.00 per day

Dampproofing—
Two-coat work, 20c per yard.
Membrane waterproofing—4 layers of P.B. saturated felt, $4.50 per square.
Hot coating work, $2.00 per square.
Wage—Roofers, $8.00 per day.

Electric Wiring—$3.00 to $9.00 per outlet for conduit work (including switches).
Knob and tube average $2.25 to $5.00 per outlet, including switches.
Wage—Electricians, $9.00 per day; fixture hangers, $8.00 per day.

Elevators—
Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
Sand, 60 cents; clay or shale, $1.25 per yard.
Teams, $10.00 per day.
Trucks, $21 to $27.50 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
Ten-foot balcony, with stairs, $65.00 per balcony.

Glass (consult with manufacturers)—
Double strength window glass, 15c per square foot.
Quartz Lite, 50c per square foot.
Plate, 80c per square foot.
Art, $1.00 up per square foot.
Wire (for skylights), 25c per square foot.
Obscure glass, 25c per square foot.
Note—Add extra for setting.
Wage—Glaziers, $8.00 per day.

Heating—
Average, $1.70 per sq. ft. of radiation, according to conditions.
Wage—Steamfitters, $9.50 per day.

Iron — Cost of ornamental iron, cast iron, etc., depends on designs.
Wage — Iron workers, bridge and structural, $11.00 per day.
Architectural iron workers, $9.00 per day.

Lumber (prices delivered to bldg. site)
Common, $24.00 per M (average).
Common O.P. select, average, $31.00 per M.

1 x 6 No. 3—Form lumber	$19.00 per M
1 x 4 No. 1 flooring	50.00 per M
1 x 4 No. 2 flooring	49.00 per M
1 x 4 No. 3 flooring	35.00 per M
1 x 6 No. 2 and better flooring	45.00 per M
1¼ x 4 and 6 No. 2 flooring	53.00 per M

Slash grain—

1 x 4 No. 2 flooring	38.00 per M
1 x 4 No. 3 flooring	36.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90c per bdle.

Hardwood Flooring (delivered to building)—
$\frac{13}{16}$x3¼" T & G Maple.....$135.00 M ft.
$1\frac{1}{16}$x2¼" T & G Maple..... 145.50 M ft.
⅞x3½ sq. edge Maple.....132.50 M ft.

	$\frac{13}{16}$x2¼" T&G	⅜x2" T&G	⅞x2" Sq. Ed
Clr. Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel. Qtd. Oak	150.00 M	122.00 M	131 M
Clr. Pla. Oak	155.00 M	110.00 M	113 M
Sel. Pla. Oak	132.00 M	79.00 M	97 M
Clear Maple	147.00 M	101.00 M	

Laying & Finishing 16c ft. 15c ft. 13c ft.
Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$4.20
2 ply per 1000 ft. roll	6.30
3 ply per 1000 ft. roll	9.60
Sash cord com. No. 7	$ 1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	60.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $110 per 1000.
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel), $7.50 and up, each.
Doors, including trim (five panel), $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $6 each.

Dining room cases, $7.50 per lineal foot.
Labor — Rough carpentry, warehouse heavy framing (average), $12 per M.
For smaller work, average, $25 to $32 per 1000.
Wage—Carpenters, $9.00 per day.
Laborers—$5.50 per day.

Marble—(Not set), add 40c to 60c per ft. for settling.

Alaska	$1.15 sq. ft.
Columbia	1.15 sq. ft.
Pink Lepanto	1.40 sq. ft.
Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.

Floor Tile — Set on any of above except Verde Antique.....$1.10 sq. ft.

Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.
Hauteville	2.25 sq. ft.
French Grey	1.40 sq. ft.

Wages — Marble setters, $9.50 per day; helpers, $6.50 per day; marble polishers and finishers, $7.00 per day.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard

Turpentine, 88c per gal. in cans and 73c per gal. in drums.
Raw Linseed Oil.....89c gal. in bbls.
Boiled Linseed Oil ....92c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per Lb.
1 ton lots, 100 lbs. net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13¼c
500 lb. and less than 1 ton lots	13½c
Less than 500 lb. lots	14c

Wage—Painters, $9.00 per day.
Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14" long (average), $6.00 each.

Plastering—Interior—

1 coat, brown mortar only, wood lath	$0.40 yd.
2 coats, lime mortar hard finish, wood lath	.52 yd.
2 coats, hard wall plaster, wood lath	.55 yd.
3 coats, metal lath and plaster	1.05 yd.
Keene cement on metal lath	1.20 yd.
Ceilings with ¾ hot roll channels metal lath	.75 yd.
Ceilings with ¾ hot roll channels metal lath plastered	1.55 yd.
Single partition ¾ channel lath 1 side	.70 yd.
Single partition ¾ channel lath 2 sides 2 inches thick	2.50 yd.
4-inch double partition ¾ channel lath 2 sides	1.40 yd.
4-inch double partition ¾ channel lath 2 sides plastered	2.80 yd.

Plastering—Exterior—

2 coats cement finish, brick or concrete wall	1.03 yd.
2 coats Atlas cement, brick or concrete wall	1.28 yd.
3 coats cement finish No. 18 gauge wire mesh	1.80 yd.
3 coats Atlas finish No. 18 gauge wire mesh	2.08 yd.
Wood lath, $4.25 per 1000.	
2.5 lb. metal lath (dipped)	.20 yd.
2.5 lb. metal lath (galvanized)	.24 yd.
3.4 lb. metal lath (dipped)	.26 yd.
3.4 lb. metal lath (galvanized)	.30 yd.

¾-inch hot roll channels, $76 per ton.
Hardwall plaster, $15.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $16.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15.
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.
Wages—Plasterers, $11 to $12 per day.
Wages—Lathers, $8.50 to $9 per day.
Wages—Hodcarriers, $7.50 to $8 per day.

Composition Stucco—$1.60 to $2.00 per sq. yard (applied).

Plumbing—
From $58.00 per fixture up, according to grade, quantity and runs.
Wage—Plumbers, $9.50 per day.

Roofing—
Five-ply tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $26.00 to $40.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Pabco, 10-yr. roof, $8.50 per sq.
Pabco, 20 year, roof, $11.50 per sq.
Recoat, with Gravel, $3.00 per sq.
Wage—Roofers, $8.00 per day.

Sheet Metal—
Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—
Copper, $1.25 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).
Wage—Sheet metal workers, $9.00 per day.

Stone—
Granite, average, $6.00 sq. ft. in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.
Wage—Stone cutters, $8.50 per day
Stone setters, $9.00 per day.

Store Fronts—
Copper sash bars for store fronts, corner, center and around sides, will average 70c per lineal foot.
Note—Consult with agents.

Steel Structural—$92.50 per ton (erected) This quotation is an average for comparatively small quantities.
Light truss work higher; plain beam and column work in large quantities, less.
Cost of steel for average building (erected), $90 per ton.

Reinforcing—
Base price for car load lots, $2.80 per 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.
Wage—Housesmiths, $9.00 per day.

Steel Sash—
All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 80c per foot, laid.
White floor, 80c per foot, laid.
Colored floor tile, $1.00 per ft., laid.
Promenade tile, 80c per sq. ft., laid.
Wage—Tilesetters, $10.00 per day.

ELECTED PRESIDENT

W. A. Bechtel, San Francisco contractor, was elected president of the Associated General Contractors of America, at the annual convention of that organization in West Baden, Ind., January 27. E. J. Thomas of Memphis, Tenn., elected vice-president, died suddenly after assuming office. Mr. Bechtel, as president, succeeds Sumner Sollitt of Chicago and Los Angeles.

SAN RAFAEL THEATER

Plans have been prepared by Reid Bros. of San Francisco for a reinforced concrete theater, store and apartment building to be erected on Fourth street, San Rafael, for Jacob Albert. The theater portion will be leased to the Blumenfeld Theater Circuit.

DRINKING FOUNTAINS IN COLOR

Architects are pleased to note a new feature in Haws drinking fountains: color tones to match the walls.

William L. Garren, architect of San Francisco, has installed one in green to harmonize with the decorations in the Allendale theater, Oakland, and in the Alta Mira hotel, Sausalito, Fabre & Hildebrand, architects. have used the brick color to good advantage.

PORTLAND ARCHITECTS BUSY

Plans covering a ten year building program at a cost of $4,000,000 are on the boards of Jacobberger & Smith, architects of Portland, for the Columbia University of that city. Two units are already in use. The third unit, for business administration, is to be erected immediately.

THIS really unusual floor—specially selected for his own studio by Walter Schwerer, noted interior decorator of Cleveland, Ohio—shows how BONDED FLOORS encourage originality. The "planks" are strips of two-tone brown *Gold Seal* Jaspé Linoleum, with dark brown interliners and dowels inserted to complete the effect. A floor in harmony with the old-world interior—yet with all the restful quietness, resilient comfort, and sanitary advantages for which BONDED FLOORS are famous.

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B	
BUILDING MATERIAL EXHIBIT (M. L. Schmidt, manager)	First & Mezz.
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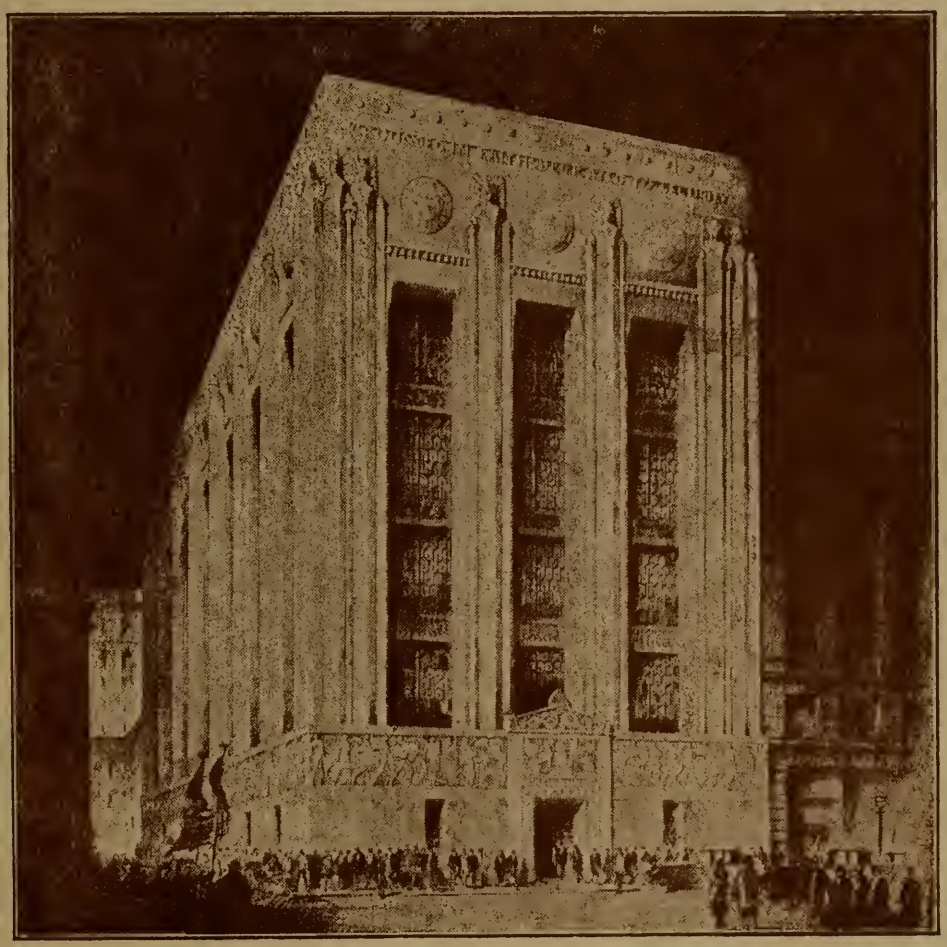

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Has Indiana Limestone Company Proved Itself?

BELOW we list a few of the outstanding projects, contracts or orders for which have been received since the formation of the Indiana Limestone Company, May 28, 1926. The list speaks for itself.

Detail of Pier Capital, Consolidated Gas Co. Bldg., Boston. Parker, Thomas & Rice, Architects.

New York Life Insurance Co. Building, New York City
Central Savings Bank, New York City
Bank of New York & Trust Co., New York City
Riverside Church, New York City
Church of the Heavenly Rest, New York City
Cathedral of St. John the Divine, New York City (all interior work only)
Temple Emanu-El, New York City
Central Library, Brooklyn
New York Athletic Club, New York City

▼ ▼ ▼

Cook County Criminal Courthouse, Chicago
McKinlock Memorial Campus, Northwestern University, Chicago
Rockefeller Memorial Chapel, University of Chicago
333 North Michigan Ave. Bldg., Chicago

▼ ▼ ▼

Consolidated Gas Co. Building, Boston
Five Cent Savings Bank Bldg., Boston
Industrial Trust Bldg., Providence, R. I.
Greater University of Rochester, Rochester, N. Y.
U. S. Post Office Bldg., Syracuse, N. Y.
Cadet Mess, Store and Academy, West Point, N. Y.

▼ ▼ ▼

Provident Life Insurance Co. Building, Philadelphia
Fidelity Trust Building, Philadelphia
Atlantic City Convention Hall, Atlantic City
Masonic Temple, Scranton, Pa.
Soldiers and Sailors' Memorial Bridge, Harrisburg, Pa.
Public School Administration Building, Pittsburgh

▼ ▼ ▼

Washington Cathedral, Washington, D. C.
City College, Baltimore
Municipal Office Building, Baltimore
Federal Reserve Bank, Baltimore
Buncombe County Courthouse, Asheville, N. C.

▼ ▼ ▼

Union Terminal Tower, Cleveland
Church of the Savior, Cleveland
Scottish Rite Cathedral, Indianapolis
Chamber of Commerce Bldg., Cincinnati
War Memorial, Louisville, Ky.
Civil Courts Building, St. Louis
Missouri River Waterworks Building, St. Louis

▼ ▼ ▼

Museum, University of Michigan, Ann Arbor
Chapel for Hope College, Holland, Mich.
Memorial Union, Ames, Iowa
General Hospital, Iowa City
Medical Arts Building, Oklahoma City, Okla.
Masonic Temple, Topeka, Kan.
Central Lutheran Church, Minneapolis
Sears-Roebuck Co. Bldg., Minneapolis

▼ ▼ ▼

Courthouse, El Dorado, Ark.
Convention Hall, San Antonio, Texas
Administration and Records Building, Dallas, Texas
Courthouse, Grand Junction, Colo.
Masonic Consistory Bldg., Cheyenne, Wyo.

▼ ▼ ▼

Royal York Hotel, Toronto, Canada

(Indiana Limestone Company is a consolidation of 24 of the oldest and largest companies in the Indiana Limestone district. With assets of over $46,000,000.00, this Company has facilities for handling any number of large contract operations.)

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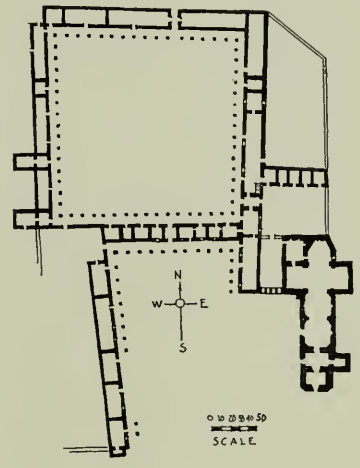
ETCHINGS OF THE FRANCISCAN MISSIONS OF CALIFORNIA

By Henry Chapman Ford

PUBLISHED 1883

No. 3—San Juan Capistrano

Mission San Juan Capistrano, on El Camino Real between Los Angeles and San Diego, was founded by Father Serra in 1776. *The stone church, of which the ruins show in the picture, was the only large masonry vaulting attempted at any of the missions, and was a work of considerable magnitude in view of the facilities of the builders. Shortly after its completion it was destroyed by an earthquake in* 1812, *and was never rebuilt. The debris shown in Ford's etching is now cleared away to the pavement level. At no other mission are the remains of the arcaded cloisters as extensive as at San Juan Capistrano. In fact, the buildings as they stand today probably convey the most complete impression obtainable of one of the mission establishments in its prime.*



MISSION SAN JUAN CAPISTRANO
FROM AN ETCHING BY HENRY CHAPMAN FORD

The
ARCHITECT
AND ENGINEER
March, 1928

The ARCHITECT AND ENGINEER

VOL. 92 MARCH, 1928 NO. 3

The San Francisco STOCK EXCHANGE COMPETITION

By Warren C Perry
Architectural Adviser

THE recent competition for the new building of the San Francisco Stock Exchange was notable in at least three ways: the generosity and open-mindedness of the owners; the sportsmanship of the competitors and finally (perhaps consequently) the individuality and strength of the schemes presented.

The task of adviser which the writer undertook with some misgivings, was made easy and pleasant by the attitude of the Exchange Board of Governors and their able executive secretary, J. C. Whitman, who entered fully into the spirit of the advice offered by the American Institute of Architects to those promoting competitions. These gentlemen deserve high praise, both for what they did and for what they were wise enough not to try to do. Unless I am much mistaken, the fortunate winners will find them good clients.

A word as to preliminaries may be of interest. After the invitations to the competitors had been extended and accepted, it was decided to try the somewhat novel scheme of getting all of the contending architects together in the flesh with the intent of reaching a harmonious agreement on certain points of the program before that document was finally sent out. Several meetings, with full attendance at each, were held after the issue of a tentative program, which was the subject of attack and revision on a number of important items. The most important business of these gatherings, however, was the selection of the judges. These were nominated unanimously by the competitors and confirmed by the owner's representative. I think that Ellis F. Lawrence of Portland and J. E. Stanton of Los Angeles, so chosen by eminent fellow-members of their calling, have reason to be proud of their selection, especially as the choice was not in the first instance limited to the Coast.

The program itself followed rather closely the model offered by the American Institute and was read and approved by the local Committee on Competitions. Hence only that part of it is quoted here that has to do with the special phases of the problem:

PART II

SITE: The site of the building is as follows: the northwest corner of Montgomery street and the short alley known as Summer street, measuring sixty-five feet (65′) on Montgomery street and one hundred and thirty-four feet six inches (134′6″) on Summer street, less the rectangle five by seventy-four feet six inches (5′x74′6″) on the inner corner.

CUBAGE: (Mandatory) The cubage of the building

shall not exceed seven hundred thousand (700,000) cubic feet.

PART IV

REQUIREMENTS OF THE BUILDING

It is the desire of the owner that the building present a distinguished appearance in conformity with its surroundings and with the character of the institution which it is to shelter. Generous allowances in the depth of the walls, for instance, may be made on both the Montgomery street and Summer street fronts for the modeling of the facades, which should be conceived in the finer materials. It is earnestly hoped that the building as a whole will display such qualities of scale and character as will enable it to hold its own among its neighbors for many years to come.

In the list of conditions below mandatory requirements are in caps and italics—if locations are mandatory, these are also printed in caps, thus: GROUND FLOOR, *Main Trading Room,* means that the room must be included in the design and that it must be on the ground floor. The areas given are approximate unless otherwise stated, but should not be departed from by more than ten per cent either way.

No limit is set for the number of floors and, except where italicized as mandatory, the locations indicated below may be disregarded.

BASEMENT—*Printing Plant* (2500 sq. ft.)

BASEMENT—No Garage is required.

BASEMENT—*Wash Room for male employes*

BASEMENT—*Heating Plant*

GROUND FLOOR—*Public lobby with two elevators serving the basement and all other floors, and a stair leading to the mezzanine floor for the use of visitors and outsiders having business with the Clearing House.* (There should, of course, be the necessary emergency stairs throughout the building.)

GROUND FLOOR—*The Main Trading Room.* Here all of the actual trading between members takes place; it must be a high room of fine, but not necessarily rich appearance, *free of all points of support over its whole area.* It may be lighted from the side or top or both. In it shall be located a *minimum of SIX "posts"* on each of which certain stocks or bonds are listed and which serve as meeting places for members buying and selling certain securities. Around the room for as great a part of its circumference as possible will be a *band of booths,* raised one step above the floor, each one serving as the permanent headquarters of a given member and equipped with direct telephone connection to this member's place of business. Outside this band of booths *shall be a passageway about four feet* (4′) *wide* for messengers who will thereby have access to the booths but not to the floor. *Certain relations between these elements must be observed: the "posts" must be not less than eighteen feet* (18′) *center to center; the center of "posts" must be not less than ten feet* (10′) *from the nearest booth or from other fixed object.* While the arrangement of these posts is not laid down, it should be borne in mind that for trading purposes they should be in as compact a group as possible.

Along one side of the room will be *the blackboard* for marking up quotations; this should be about eight feet in height; should be placed high enough on the wall to insure visibility and *should have a railed platform* above the heads of those on the floor for the boys who chalk up the figures. The *Visitors' Gallery* referred to below will command the Trading Room from the level of the mezzanine floor.

GROUND FLOOR—*Members Smoking Room* (1000 sq. ft.) accessible from the lobby and *opening directly into the Trading Room* with *Coat Room and men's lavatory* (250 sq. ft.) and *Lunch Counter* (80 sq. ft.) in conjunction.

GROUND FLOOR—*Comparison Room* (400 sq. ft.) for comparing and temporarily pigeon-holing trading memoranda—preferably adjacent to Trading Floor.

GROUND FLOOR—*Telegraph Office* (150 sq. ft.)

MEZZANINE FLOOR—*Ticker Room* (80 sq. ft.)

MEZZANINE FLOOR—*Telephone Exchange* (80 sq. ft.)

MEZZANINE FLOOR—*Clearing House* (2250 sq. ft.) *accessible to public.*

MEZZANINE FLOOR—*Visitors' Gallery. Accessible to public,* with fixed seats for 40 persons.

SECOND FLOOR—*Room for the Board of Governors* (300 sq. ft.)

SECOND FLOOR—*Two Committee Rooms* (each 250 sq. ft.)

SECOND FLOOR—*Suite of Executive Offices, consisting of a Reception Room* (225 sq. ft.) *and six offices* (each 225 sq. ft.)

SECOND FLOOR—*Suite of two rooms for the Institute* (the organization of the employes) (each 225 sq. ft.)

SECOND FLOOR—*The Institute Library* (600 sq. ft.)

SECOND FLOOR—*Two Lounge Rooms* for men and for women adjoining the Library (each 400 sq. ft.)

SECOND FLOOR—*Ladies' Rest Room* (200 sq. ft.) with lavatory.

SECOND FLOOR—*Men's Lavatory.*

THIRD FLOOR—*Two or more Class Rooms* for the Institute (one of 450 sq. ft., one of 1250 sq. ft.)

THIRD FLOOR—*Gymnasium* suitable for basket ball and equipped with a small stage, locker and shower facilities for men.

THIRD FLOOR—*A small kitchen* for use in conjunction with the gymnasium when the latter is used for social gatherings.

ROOF—Open air handball courts.

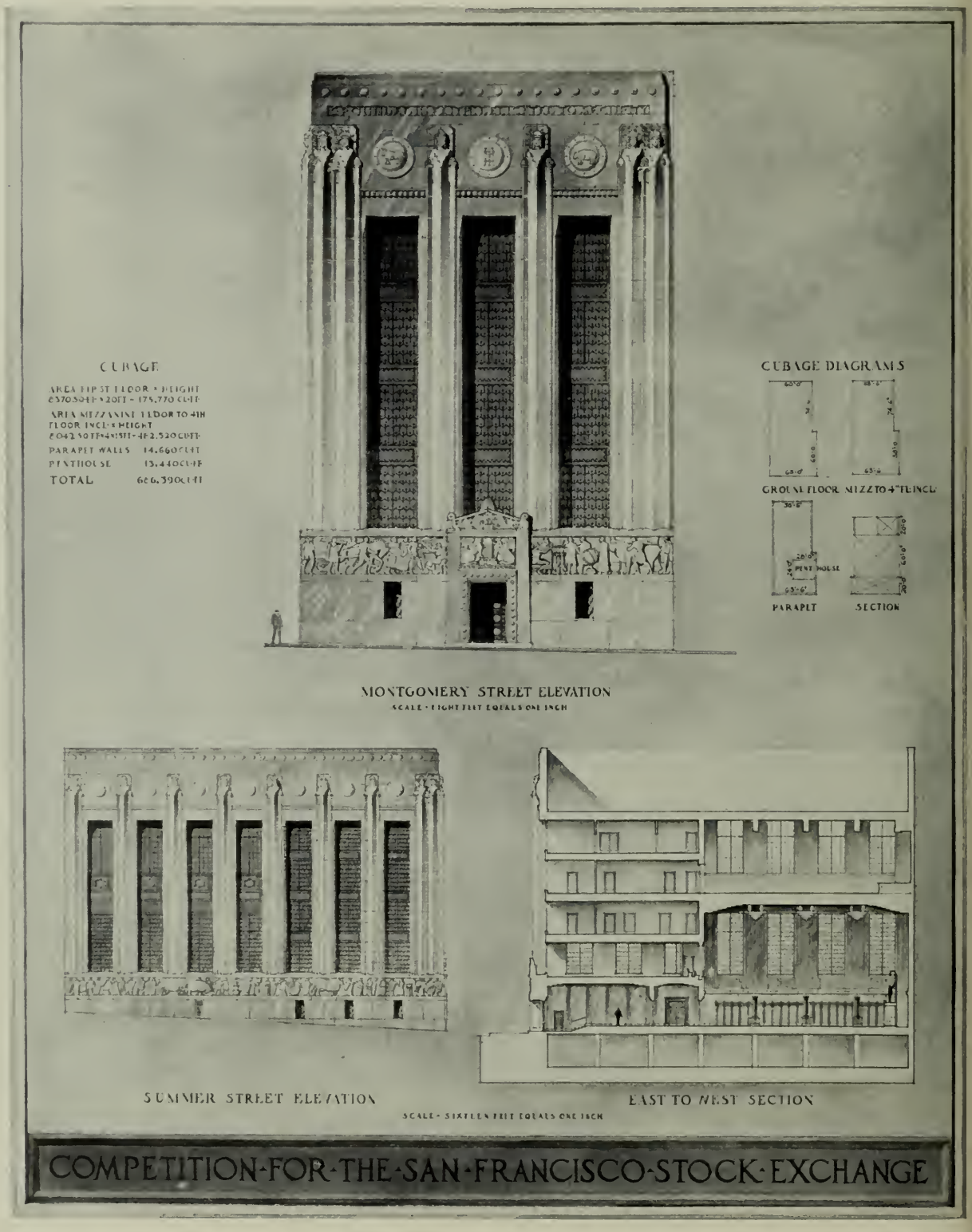
When the "rendu" arrived, notwithstanding the small number of drawings to be considered, the judges met on two consecutive days, February 3rd and 4th, as provided by the program. Their unanimous choice for first place was the design submitted by Messrs. Miller and Pflueger, already published in part in the preceding issue of this magazine. The reasons for their choice are set forth in the report here given:

"No attempt was made to place the other designs, a number of which were felt to be of so high an order of merit as to be worthy under other circumstances of the first award.

"The Jury of Award unanimously selected

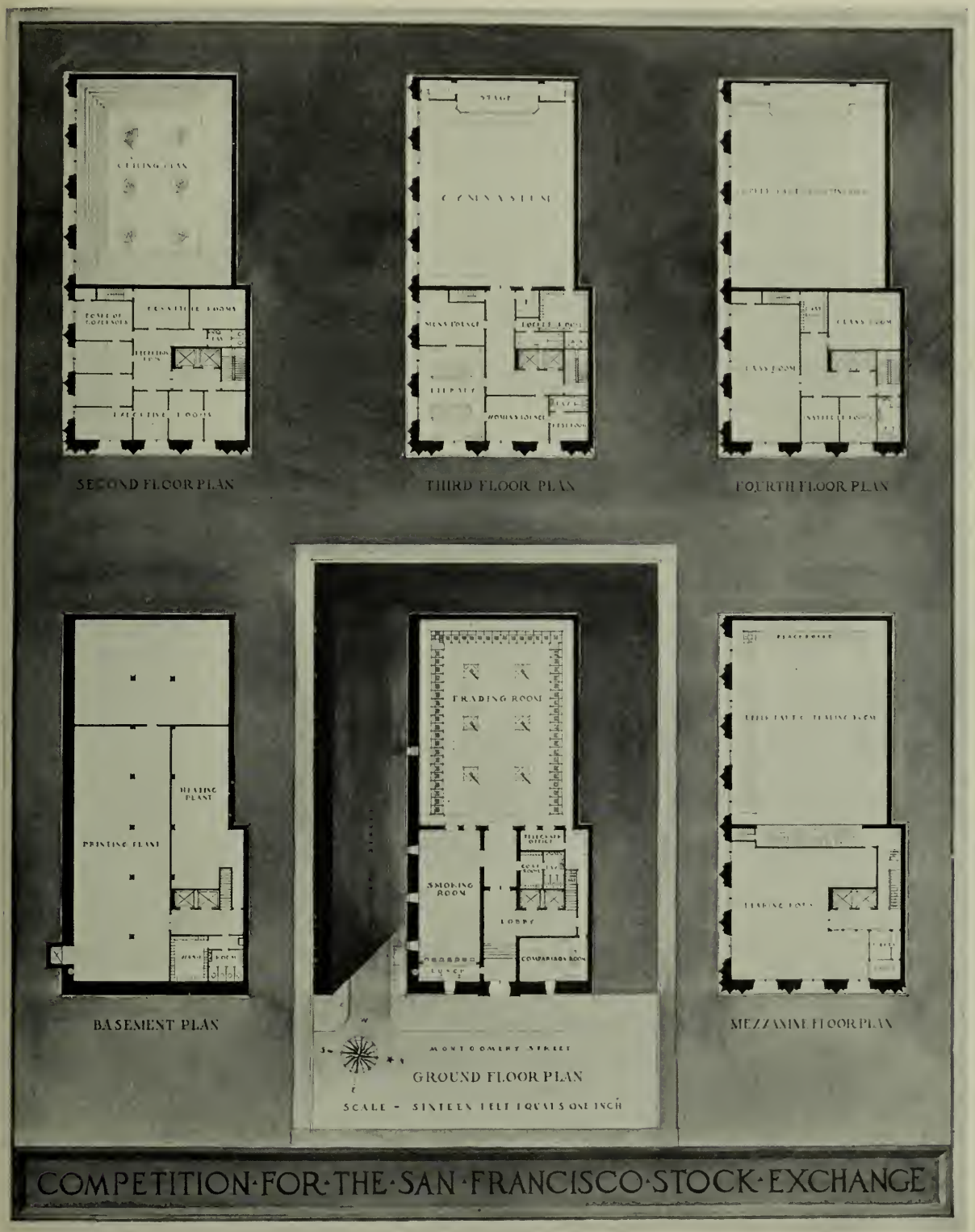
WINNING DESIGN FOR STOCK EXCHANGE BUILDING, SAN FRANCISCO

MILLER AND PFLUEGER, ARCHITECTS


CUBAGE
AREA FIRST FLOOR × HEIGHT
63705SQFT × 20FT = 175,770 CUFT
AREA MEZZANINE FLOOR TO 4TH FLOOR INCL × HEIGHT
62423SQFT × 40.5FT = 452,520 CUFT
PARAPET WALLS 14,660CUFT
PENTHOUSE 13,440CUFT
TOTAL 666,390CUFT
CUBAGE DIAGRAMS
GROUND FLOOR MEZZ TO 4TH INCL
PENT HOUSE
PARAPET
SECTION
MONTGOMERY STREET ELEVATION
SCALE - EIGHT FEET EQUALS ONE INCH
SUMMER STREET ELEVATION
EAST TO WEST SECTION
SCALE - SIXTEEN FEET EQUALS ONE INCH
COMPETITION FOR THE SAN FRANCISCO STOCK EXCHANGE

ELEVATIONS, WINNING DESIGN FOR STOCK EXCHANGE BUILDING, SAN FRANCISCO

MILLER AND PFLUEGER, ARCHITECTS

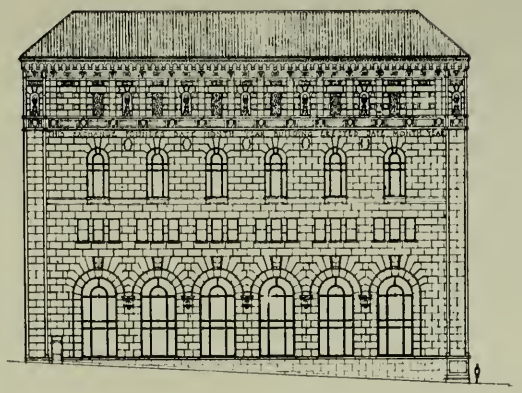


PLANS, WINNING DESIGN FOR STOCK EXCHANGE BUILDING, SAN FRANCISCO

MILLER AND PFLUEGER, ARCHITECTS

SAN FRANCISCO STOCK EXCHANGE COMPETITION

BLISS AND FAIRWEATHER, ARCHITECTS

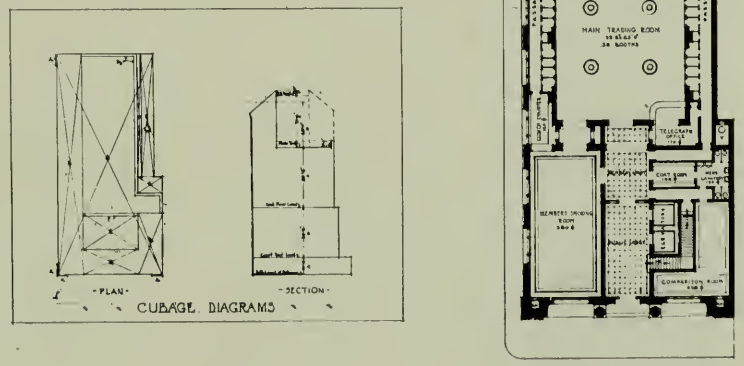


SUMMER STREET ELEVATION

SCALE: ONE-SIXTEENTH INCH EQUALS ONE FOOT.

LONGITUDINAL SECTION

SCALE: ONE-SIXTEENTH INCH EQUALS ONE FOOT



GROUND FLOOR PLAN

SCALE ONE-SIXTEENTH INCH EQUALS ONE FOOT

CUBAGE DIAGRAMS

CUBAGE COMPUTATIONS

A - SIDEWALK AT ENTRANCE TO COURT ROOF

B - COURT ROOF TO 2ND FLOOR LINE

C - 2ND FLOOR LINE TO MAIN ROOF

D - ROOF HOUSE UNDER TILE ROOF

E - PENT HOUSE WITH FLAT DECK

D_1 - PARAPET WALLS MAIN ROOF

F - PARAPET WALL PENT HOUSE DECK

TOTAL CUBIC FEET

PLAN AND ELEVATION, SAN FRANCISCO STOCK EXCHANGE COMPETITION

BLISS AND FAIRWEATHER, ARCHITECTS

Scheme E (Miller & Pflueger) as the winning design. It has satisfied itself that this design conforms to all mandatory provisions of the program. Two sessions of the Jury on separate days have been held, and in accordance with the terms of the program the Jury here affirms that it has made no effort to learn the identity of the authors of the various designs submitted, and remained in ignorance of such identity until after the secret ballot was taken selecting the winner.

imposed by limited frontage on a narrow street with neighboring structures of large scale.

"The Jury is impressed by its truthfulness in expressing the functions of the various floors and structural features.

"While decidedly modernistic in its handling, it is not without the elements of restraint and good taste necessary to insure its future status as a work of art.

"The plan of Scheme E is direct, sound and builds well. It serves adequately the practical

ELEVATION AND SECTION, SAN FRANCISCO STOCK EXCHANGE COMPETITION

Arthur Brown, Jr., Architect

"Scheme E has been selected because of its 'distinguished appearance' and because the Jury believes its 'quality of scale and character will enable it to hold its own among its neighbors for many years to come,' in a distinctive and impressive manner.

"It is an admirable expression of street architecture with fine play of light and shade gained by arrangement of surfaces and detail; and with splendid possibilities for fine combination of material and color. It has rhythm, unity and strength. In the opinion of the Jury it best solves the difficulties surrounding the problem

problems in the operation of the Exchange and recognizes the special needs of the public and the Institute.

"Its Summer street facade is definitely a contribution to the ensemble and its section shows the Main Trading Room to be of ample, dignified proportions and well lighted.

"The Jury trusts, through selection of materials as to texture and color, that the possibilities suggested in the design will be fully met, and is mindful of the symbolic significance and value of the architectonic bas relief applied on the fine strong unifying base motive.

"The Jury congratulates the Exchange on the outcome of their competition in producing such a distinguished example of sincere, functional and beautiful architecture.

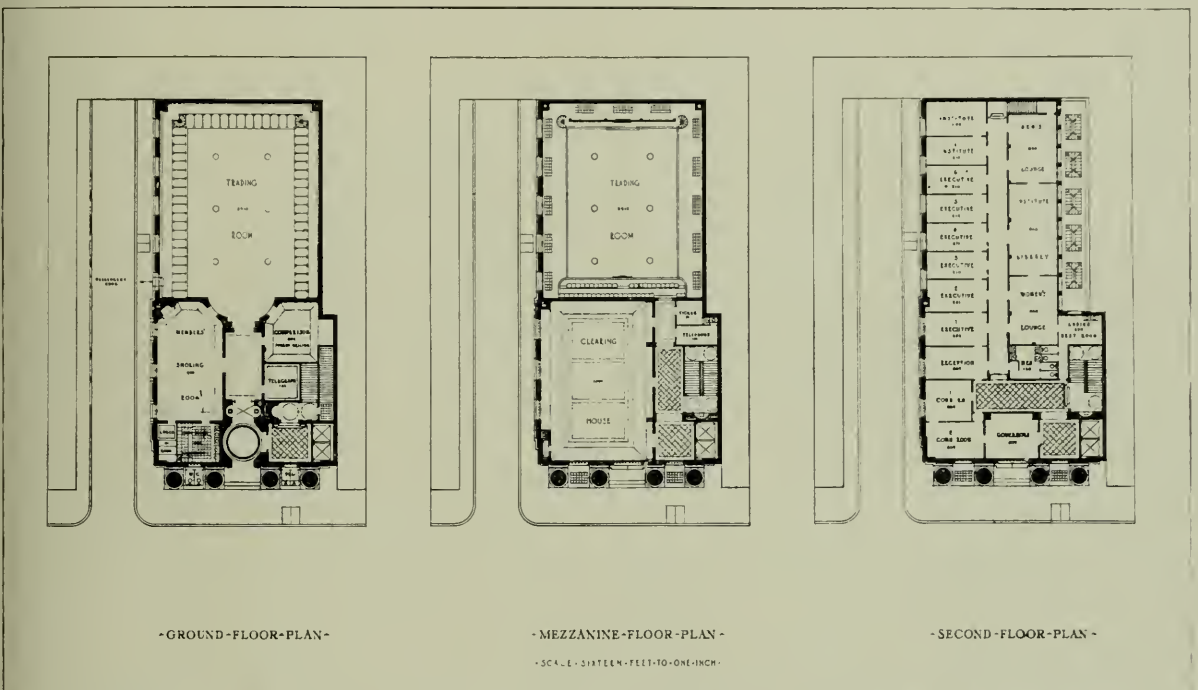
(signed) "ELLIS F. LAWRENCE
"J. W. STANTON
"J. C. WHITMAN."

Here the professional adviser must end his duties but the student of architecture cannot refrain from moralizing before he closes:

WINNING DESIGN SUGGESTS RATIONAL STYLE

By B. J. S. Cahill, Architect

A CENTURY or so from now historians will probably regard this epoch in which we live as the great building age of our country, when the cities took shape and the quickly conceived and provisional format of our street fronts was replaced by a more permanent dress



PLANS, SAN FRANCISCO STOCK EXCHANGE COMPETITION
Arthur Brown, Jr., Architect

Is this vigorous, young design, so full of life, a little crude, perhaps, but withal so direct and logically fine, a stride toward the ever shifting ideal? —Let us, at least not dub it "modern" and thereby lump it with the sickening product of the seeker after effect that blights every great change. Rather let us term it "rational" and pray that when at last its clean-cut frame arises it be fitly clothed in a rich vesture that will gratify our most discriminating taste even as its organism pleases our sense and sight.

May restraint prove to be coupled with courage!

unimported from foreign shores; individual and indigenous, the real architecture of America.

The day is arriving, but not arrived; and the chronicler of later times, like the chroniclers of today, may find no little difficulty in identifying those few epoch-making structures which mark the new departure, since transitions from one style to another are invariably brief and baffling. And Nature's transitions are quite similar to those of Art. For an immense epoch, one biological type covers the planet, and paleontologists discover that this type suddenly disappears and another type has supplanted the

first, and it is extremely difficult to find the interlinking transitory forms bridging the two. Clearly the world of Art needs a Darwin to write the Origin of Styles.

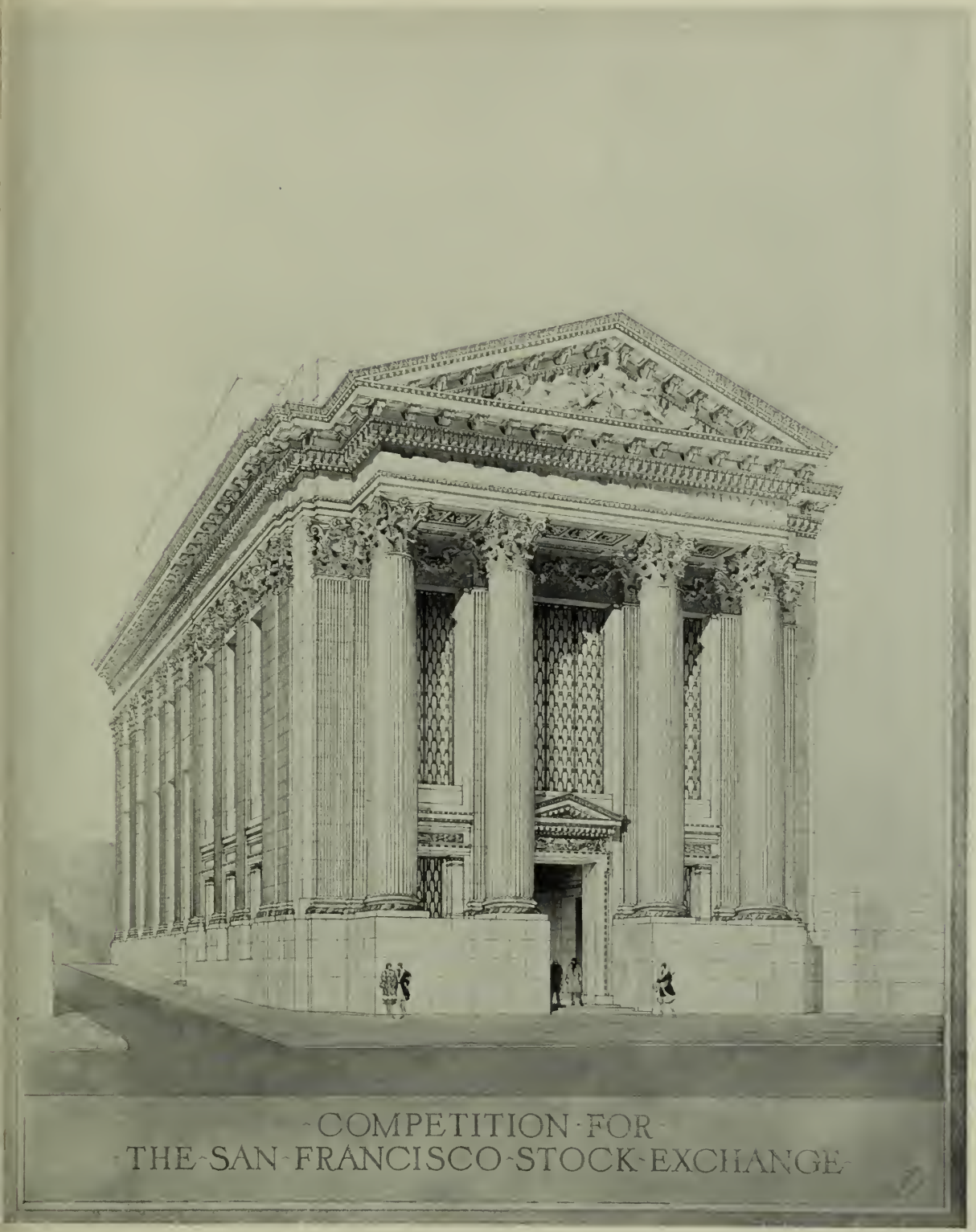
We are lead to these thoughts because they may help us in the right appraisal of the building design selected for the new San Francisco Stock Exchange. This design is so entirely different from anything deliberately chosen for a quasi-public structure in the Pacific metropolis of the United States that it calls for much more than mere passing notice. Whether it is really one of the transitional types leading to the American style that we are all vaguely expecting, can, of course, only be determined long after the event. But there are many reasons for believing that it really might be a pioneer in a new field of modern architectural design. At any rate, it is a tremendously interesting piece of work as conceived on paper, and, coming from the same hands that gave us the unique and gigantic Telephone building, which we described in detail two years ago, it can be confidently predicted that its realization will set a new mark in contemporary design, and that, as many a single work of art has done before, it may deflect the flow of future designs into entirely new channels.

Nor must this design be ranked with those sporadic and individualistic attempts at something "different" occasionally sponsored by an enterprising private citizen and an ingenious draughtsman. There is a difference between what botanists call a "sport," or an occasional departure from normal, and a persistent variation which becomes fixed in a new species. Indeed, the remarkable thing about the survival of this design over the four others rejected lies in the fact that its selection came through the very staid and conservative machinery of an architectural competition conducted strictly under the management and rulings of the American Institute of Architects. Even more interesting as a business tribute to the responsibility of the Institute's procedure, and confidence in the soundness of the established profession of architecture, was the make-up of the jury that was to select the winning design. Two of the members are architects from Portland and Los Angeles, respectively, with one juror only to represent the owners, the San Francisco Stock Exchange. From the fact that one juror, Ellis F. Lawrence, is the Dean of the School of Architecture in the University of Oregon, and the adviser, Warren C. Perry, is the Dean of the School of Architecture at the University of California, it may be judged how thoroughly academic was the atmosphere in which this remarkable competition was carried out, and, as the verdict was unanimous, it follows that the selection rested finally with the profession, and was outside and practically independent of the owners: a very fine tribute to the American Institute of Architects; but, perhaps a still finer tribute to the ruling body of the Exchange, and a real vindication of the phrase "San Francisco Knows How." The full recognition of what is meant by the professional attitude as against the commercial, partisan or political attitude is the surest sign there is of a city's emergence from provincialism. The disposition to listen to expert advice is the measure of a community's maturity.

The architects selected to compete for the new Stock Exchange building were as follows: Arthur Brown Jr., Bliss and Fairweather, Weeks and Day, Lewis P. Hobart and Miller and Pflueger, all of San Francisco.

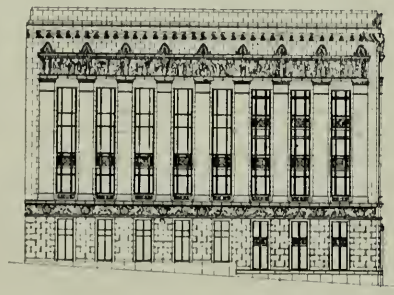
As the lot is small, and the requirements of the Exchange quite definite, all the plans were rather close in accord. The lay-out seemed self-evident. For all that, the winning design was the most straightforward. Supremely important, as the plan is in all buildings, it is quite evident that in this instance the main thing to be selected was the architectural envelope, or design. The five perspective drawings showed a beautifully graduated series ranging from the strictly conventional and classic through varying phases of quasi-historical to free and unclassifiable types, culminating in the quite original winning design, practically emancipated from all precedent whatsoever.

The general feeling that, having served a very full apprenticeship in the historical styles, it is time architecturally to start "on our own" has at last penetrated the whole community. At least, our practical business leaders, as well as our professional men have unanimously and jointly, as it were, come to a resolution to copy or adapt old work no more. It is a momentous resolve, and while it will take shape sporadically and by degrees with much side-stepping and many retrogressions, the movement as a



SAN FRANCISCO STOCK EXCHANGE COMPETITION

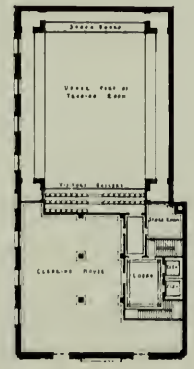
ARTHUR BROWN, JR., ARCHITECT



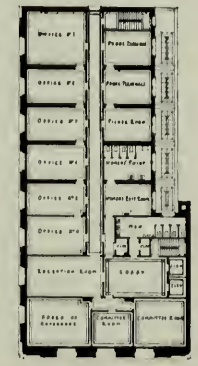
SUMMER STREET ELEVATION

EAST TO WEST LONGITUDINAL SECTION

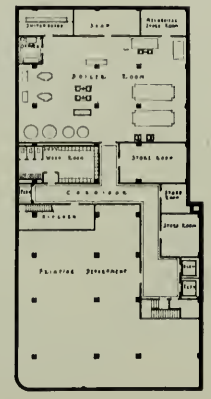
COMPETITION FOR
THE SAN FRANCISCO STOCK EXCHANGE



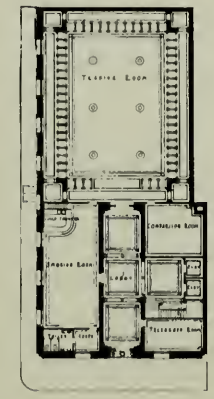
MEZZANINE FLOOR PLAN



SECOND FLOOR PLAN



BASEMENT PLAN



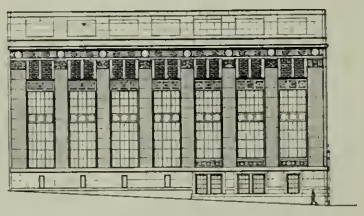
FIRST FLOOR PLAN

COMPETITION FOR
THE SAN FRANCISCO STOCK EXCHANGE

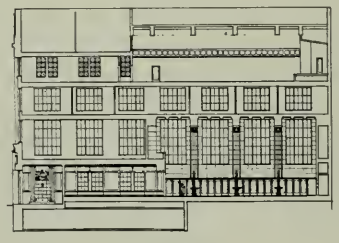
ELEVATION AND PLANS, SAN FRANCISCO STOCK EXCHANGE COMPETITION

SAN FRANCISCO STOCK EXCHANGE COMPETITION

WEEKS AND DAY, ARCHITECTS

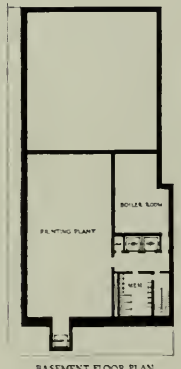


SUMMER STREET ELEVATION



EAST TO WEST SECTION

COMPETITION FOR THE SAN FRANCISCO STOCK EXCHANGE



BASEMENT FLOOR PLAN

FIRST FLOOR PLAN

MEZZANINE FLOOR PLAN

COMPETITION FOR THE SAN FRANCISCO STOCK EXCHANGE

ELEVATION AND PLANS, SAN FRANCISCO STOCK EXCHANGE COMPETITION

LEWIS P. HOBART, ARCHITECT

COMPETITION FOR THE SAN FRANCISCO STOCK EXCHANGE

SAN FRANCISCO STOCK EXCHANGE COMPETITION

LEWIS P. HOBART, ARCHITECT

whole is well launched, and there could be no better concrete proof of this than the action of the judges in the new San Francisco Stock Exchange competition, which first rejected the most classical design and finally retained the least classical one. It is the surest sign that the American people will no longer consent architecturally to be piloted by the past, but will in future, fly alone. It is the Spirit of '76 again.

The new building is to rise in the very heart of San Francisco's financial center, that is at the corner of Montgomery and Summer streets.

Summer street is a cul-de-sac leading to a market over which in the old days was the old Bohemian Club. The little street is not without historical interest and as the new building will reach back along most of its length a word about the past of Summer street will not be out of place. Before the great fire, right where the Trading Room of the new Exchange will be, was Clem Dixon's Ale House, an old-time, old-world place, typical of the British Pub rather than the American saloon. It was dark, plain and unpretentious: cobwebs on the ceiling, sand upon the floor. Here one drank bitter English ale out of huge and heavy pewter mugs. A free lunch of roast mutton, which never masqueraded as lamb, and stiltonized cheese awaited the early comers, most of whom were sea captains and others more or less in the shipping business, for Clem Dixon was a Scotch ship's carpenter with friends on all the Seven Seas.

Across the street from Dixon's in the basement of the old Nevada block was the firm of O. F. Willey, dealer in buggies, sulkies and other vehicles of the time, all of the finest for he was the Don Lee of his day. And down the steps from Summer street was the desk of George Nagle, a forty-niner contractor who is said to have built half of Sacramento and much of old San Francisco. He built the brick fort at the entrance to the Golden Gate, paying masons $25 and hodmen $17 a day. It was he also who built the tower to old Grace Church, designed by the late A. Page Brown.

How close revolution is to evolution can be seen in the passing of these three institutions, the saloon, the buggy and the old time contractor who practically carried his office under his hat; all three have passed out presumably forever!

Of the plan, it is not necessary to go into detail other than to point out that the two large room units, each three and two stories high, are placed in the rear on top of one another, the trading room on the ground floor and the gymnasium directly over it. The smaller rooms occupy the front part of the lot with five stories, instead of two. The plan is so simple that it speaks for itself. For the benefit of the layman, however, it should be explained that, just as in literature, easy writing makes hard reading; so a plan that is not the result of many revisions and substitutions has seldom the sheer simplicity of the much worked over and laboriously developed scheme. The best part of any vital diagram is done with the eraser, and not with the pencil, and it is quite obvious that this simple plan is the outgrowth of a great deal of intensive up-to-the-last-minute tedious labor which alone makes a plan so easy to look at.

The winning design, with three bays on Montgomery and seven bays on Summer street, is divided vertically into three distinct stages: a base for the first story, compound piers making one high architectural story out of the four real ones, since no masonry crosses the window heads; and finally, a very deep frieze, in reality a super-firewall, twenty feet high, the inside of which does service for a group of handball courts on the roof. The exterior fenestration, apart from very small openings in the base, consists of high vertical slots without more horizontal interruption than is necessary to define a grilled window screen from the same metal screen where it is panelled at the dado or perforated at the sash.

The greatest revolution in methods of building construction has taken place within the memory of most of us now living; the use of the steel frame, reinforced concrete and the mechanical elevator. This construction is of the same order as the trabeal system of the Greeks, indefinitely expanded, however, in power. Thus, construction has now completed a grand cycle, and we begin all over again on what is essentially a rectilinear system; but of enormously augmented power and plasticity. So far, we have done little more than to cover the new construction with the ancient forms. As though to feel out the immense possibilities of the new method, we have run through the complete gamut of historical styles from As-

syrian to Zuni, and found that modern steel and concrete methods fit them all. And because the human spirit is divinely restless and ever striving upward and onward, we may be quite assured that our architects will never halt until the problem of a new architecture is finally solved. For some time the "will" to do so has been apparent in Europe, but the comparatively small volume of construction there is against success. Moreover, as this continent is not the home of any historical style and our view is a long-range one and impartial, it follows that Americans should logically produce the new architecture which the world is looking for. And since the Western seaboard is more daring than the Eastern, and since California, the natural habitat of the pioneer, is notoriously the breeding ground of new ideas, it seems not at all unnatural that a momentous movement such as we are considering should almost necessarily originate in San Francisco.

This is why the New Stock Exchange design, in its freshness and charm, so provokes the imagination.

In the light of the above considerations it is not surprising to note in the design a recrudescence of Egypto-Greek, and even Assyrian motives. But it should be remembered that the detail shown on a competitive set of drawings is necessarily of a provisional nature. Time does not admit of a complete study of these smaller features, and a complete revision of these parts is assumed before what is now a mere bit of engraving shall be transmitted into blocks of granite.

The entire "basement" story, of which this is separate detail, is, we think, very splendidly conceived; the bold symbolic frieze, deliberately designed within easy eye-shot of pedestrians and incised in a field of polished black granite, would, we might almost hope, cause traffic disturbances, especially if an eminent sculptor handled the subject more or less "in modo antico." For it is quite established that great sculptural design of any period has never been naturalistic. We have no quarrel with certain fixed canons of artistic practice which obviously hold for all time.

"By what he leaves unsaid," wrote Goethe, "I discover the master of style," and the complete absence of any ornament, or even reminiscence of the usual, the "regular thing," in the masonry of the next four stories is the most striking feature of a design in which all parts are both unusual and original. The stonework on a modern steel building has nothing to do with carrying loads, even its own. Hence, the rounded column, the pilaster, or rectangular pier, endlessly repeated in all the buildings in our cities have no meaning any longer as the finishing veneer of a steel framed structure. The logical opportunity to substitute diagonal corners of stone instead of the tiresome edges squared with the building has here been seized upon with most refreshing and stimulating results, because absolutely new to the eye and capable of splitting all incident light into sparkling brilliance on one side of the thin front edge, and into deepest shade on the other, with what remains parallel to the street line in a medium tone and the splayed jambs of the window openings in still another shade. This device also serves to give breadth and fullness to the frontage of an already narrow lot when viewed from the normal oblique angle of approach. Now, if the reader will imagine these clustered facets of light reflected from any material, the effect would be baffling and beautiful, and quite unlike anything we are accustomed to.

And now let us note the windows, and we shall again see how they differ completely from all the office windows we have ever seen. They are no longer small, dark rectangles of glass, but large, bright rectangles of grill-work. We understand that if the stonework is carried out in polished green granite, the grillage will be done in silver; that is, some type of white metal. If, however, a green polishable stone is not available, a polished pink granite may be substituted with the metal work of Pompeiian green. In any event, the color scheme will be both new and entrancing.

The very deep frieze band, or head, of the building will again strike an unusual note in its utter freedom from anything like an overhanging cornice. This, again, is in line with sheer logic. What is a stone cornice, but the adjunct of an Order, a useless danger, an obstructor of light and a cache for dirt?

INSTRUMENT RECORDS EARTHQUAKES

AN IMPROVED seismometer, recently developed by Dr. F. Wenner of the Bureau of Standards, will soon be turned over to the Coast Geodetic Survey for a field test which may lead to its installation at the seismological station in Maryland.

This device measures earthquakes by the strength of electric current generated by vibrations of the earth's crust, it is stated. Following is the text of the description of Dr. Wenner's device as issued by the Department of Commerce:

Instead of the usual mechanical method of a record traced by a balanced weight—17 tons in one case— influenced as little as possible by the earth's motion, on a point rigidly connected with the earth mass, the improved seismometer records all motions of the earth's crust electrically and weighs no more than 15 pounds complete.

Instruments for recording earthquake shocks have been known for many years and various methods have been employed for magnifying the vibrations, which are generally small at the receiving station, and for recording them in some permanent form. All seismometers employ some sort of a weight, the mass of which is considerable as compared with other parts of the instrument, and which tends to remain stationary while the earth and the point from which the weight is suspended move back and forth.

This relative motion of the point of suspension and the weight is greatly magnified and operates a recording mechanism which traces a wavy line on a moving chart. In some cases a very heavy weight and a mechanical system of magnifying the vibrations are employed. Others use a small weight and an optional system. Both these schemes have disadvantages.

In the new seismometer the weight is small, the so-called steady mass being about one pound and the whole instrument is enclosed in a case about a foot long. The base of the instrument rests on a heavy concrete pier imbedded in the ground.

The weight is suspended in somewhat the same way as the bob of a pendulum laid on its side. In other words, motion is in a horizontal instead of a vertical plane.

Attached to the pendulum arm is a coil of many turns of insulated copper wire located in the field of a permanent magnet attached to the support of the instrument, thus constituting a miniature dynamo. If any vibration occurs the coil moves back and forth in the field of the magnet and generates a weak electric current.

This is carried by wires to the recording room and operates a galvanometer. As the galvanometer mirror moves it causes a greatly magnified motion of a spot of light which is recorded

[Turn to page 105]

Executed by Gladding, McBean & Co.

ALTHOUGH THE RICH COLORS OF THIS "MURAL PAINTING IN CERAMICS" ARE MISSING HERE, THE FINE PICTORIAL QUALITY IS NOT LOST. IT WAS DESIGNED AS AN OVER-MANTEL FOR THE CHILDREN'S READING-ROOM IN THE PUBLIC LIBRARY AT WILMINGTON, CALIFORNIA

TACOMA
Architects' Honor Awards
By Earl N Dugan

JOINING in the movement of other Pacific Coast cities, Tacoma held its first Honor Award contest in November, 1927, under the auspices of the Washington State Chapter, American Institute of Architects. Like the preceding Honor Award contests in other cities, it was sponsored for the purpose of arousing the interest of the public in the improved standards of architecture in their city, and to encourage a greater appreciation of architecture.

The conditions governing the awards were the same as those used in the recent Seattle survey, with this exception: Honorable Mentions were given meritorious work which did not measure up in all respects to the requirements for Honor Awards. This was done largely for the purpose of reaching and interesting a greater number of the general public, and accomplished its purpose in a very satisfactory way.

The local press was very generous in its support, publishing the entire report of the jury. Altogether the survey and awards attracted the attention of a large number of people.

The jury in its findings complimented the

WALKER APARTMENTS, TACOMA, WASHINGTON
Roland E. Borhek, Architect

SIXTH AVENUE BAPTIST CHURCH, TACOMA, WASHINGTON
Heath, Gove & Bell, Architects

local architects in having kept abreast of the times in producing work worthy of attention and comparison with the general advancement in architecture throughout the country.

The jury was composed of the following members: Arthur L. Loveless, Daniel R. Huntington and David J. Myers, all recognized architects of prominence in the Northwest and all members of the Washington State Chapter, A. I. A. Their report follows.

After a careful survey and study of all the buildings entered in the Tacoma Honor Awards Competition, and after due deliberation over the merits and demerits of the same, we herewith submit to you the result of our investigation and judgment.

In order to maintain a high standard of Honor Awards the jury has only given such award where the designs were outstanding, but we thought that those buildings which possessed considerable merit, but yet fell a little short of the standard maintained in such competitions, should be recognized as meritorious by giving them honorable mention.

The jury wishes to congratulate the architects of Tacoma for their work in improving the standard of architecture in their city, showing that they have kept pace with the general uplift movement in architecture which is so apparent throughout the country. One had only to walk through the streets of the city and compare the buildings which have been built in the last ten or fifteen years with those of an earlier date, to note the great progress which has been made in architectural achievement.

The jury wishes to submit the following comments in reference to the several awards made:

RESIDENCE OF C. W. LUNDBERG, TACOMA, WASHINGTON
Lundberg & Ekvall, Architects

They were particularly impressed with some of the detached dwellings of not more than five rooms.

Such houses as the Paul F. Barber house and the Elizabeth T. Ellis house, both designed by Sutton, Whitney & Dugan, architects; the Fred Corbit house, designed by Silas Nelson, architect, and the John E. McGuire house, designed by himself, all show the possibilities of designing distinctive homes possessing excellence in plan, charm and subtlety in design, simple but effective detail, and economy in materials and construction.

The brick house and garage of C. F. W. Lundberg, designed by Lundberg & Ekvall, is a little more elaborate, but is picturesque and interesting. It might have improved the scheme if a brick wall had been built connecting the house with the garage.

In the group of dwellings of five to ten rooms, the

jury found the home of J. J. Hewitt, designed by Delano & Aldrich of New York, and the George C. Weber house, designed by Sutton, Whitney & Dugan, architects, worthy of honor awards. The J. J. Hewitt house is an outstanding example of domestic architecture and well worthy of study and emulation. It could be stripped of all expensive hardwood finish and still be charming.

The George C. Weber house, designed by Sutton, Whitney & Dugan, is a good example of domestic architecture where excellence of plan is combined, at a minimum of expense, with a design depending largely for its beauty on the roof lines and the distribution and character of the windows.

The Charles B. Welch house, designed by Ambrose J. Russell, architect, is a good specimen of Colonial, where the architecture is greatly enhanced by a background of interesting heirlooms and carefully selected antiques.

The Weyerhaeuser residence, designed by Meade & Hamilton, architects, is one of the outstanding houses of the Northwest. This home is an interesting example of English brick, stone and half timber design. The treatment of the brickwork is skilfully handled in a free manner, giving a good texture to the walls, and timber work is interestingly irregular. The interior woodwork is somewhat disappointing in color and character, but the plaster walls and ornamental ceilings are a joy to behold. The ornament and surrounding mouldings are given a slightly irregular line and the ornamentation has the effect of being executed directly on the plaster. This fine example of plaster ornament should be seen by all western modelers.

The Walker apartment building, designed by Roland E. Borhek, is to be commended for the fine use of a permanent material—stone. We think the appearance of this building might have been improved if the windows were more domestic in character.

NIGHT VIEW, COTTAGE OF J. J. HEWITT, TACOMA, WASHINGTON

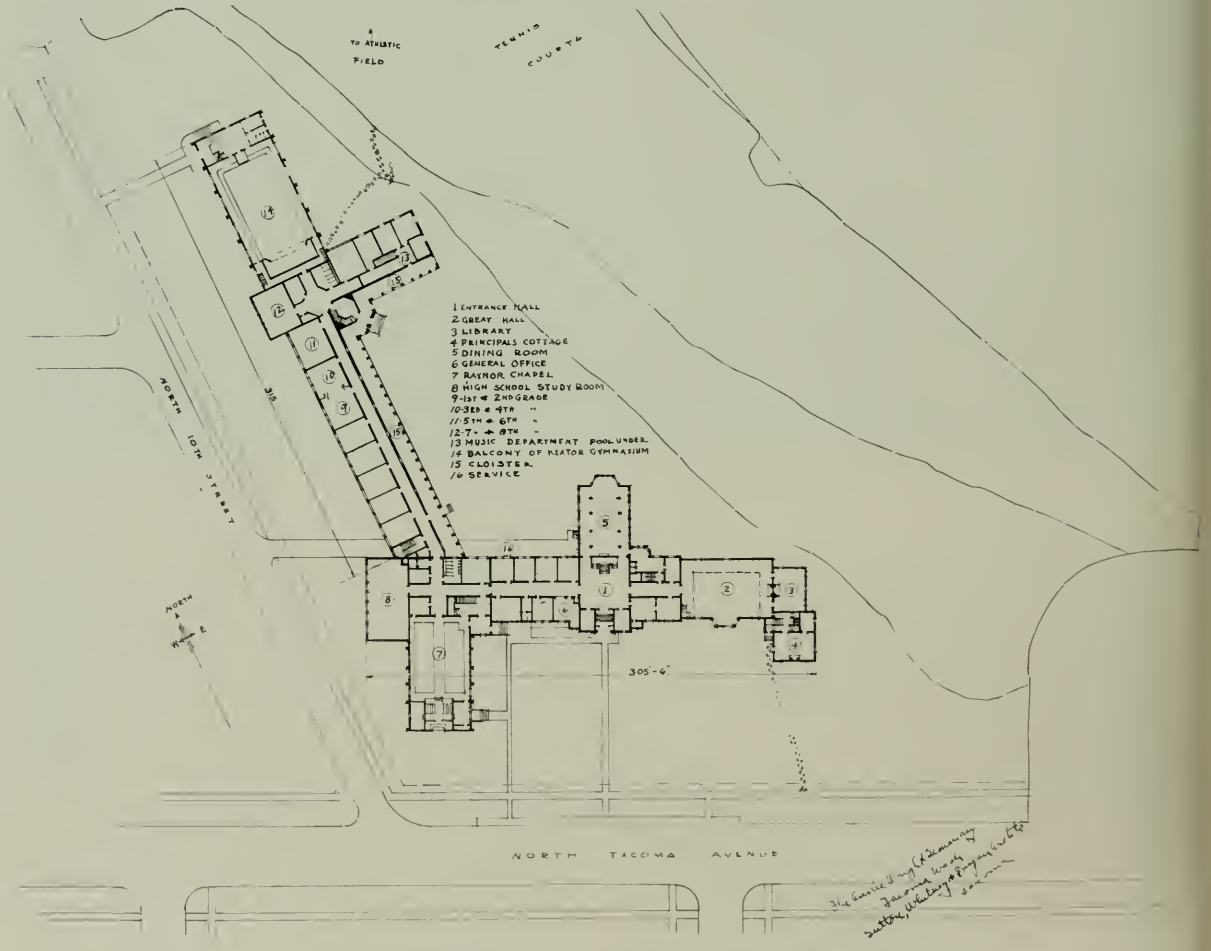
Delano & Aldrich, Architects

The highest honor award is given to the National Bank of Tacoma, of which Sutton, Whitney & Dugan are the architects. This building combines a simple, direct, well-thought-out plan with a well-proportioned and dignified exterior expressed in lasting materials and carefully studied and skilfully executed in every detail. We would like to have seen the color scheme in the interior carried a little further; the ribs in the ceiling are somewhat isolated.

An honorary award was given to the same architects for the exterior design of the Allen Garage. This design is well adapted to the purposes of the building. It is a simple solution of the problem and is worthy of commendation.

We would like to call attention to the exterior design of the Lumberman's Improvement Company Shops on

ANNIE WRIGHT SEMINARY, TACOMA, WASHINGTON
Sutton, Whitney & Dugan, Architects



PLOT PLAN, ANNIE WRIGHT SEMINARY, TACOMA, WASHINGTON
Sutton, Whitney & Dugan, Architects

LINCOLN HIGH SCHOOL, TACOMA, WASHINGTON
Heath, Gove & Bell, Architects

Tacoma avenue at First, also designed by the same architects. This is a good example for the treatment of one-story suburban stores.

The First Presbyterian Church, designed by Cram & Ferguson, architects, Sutton, Whitney & Dugan associated, is a fine piece of church architecture. Here is a building enclosing the complicated organism of a modern plant treated in a thoroughly dignified architectural manner. This building is an acquisition of which any city might well be proud.

We would like to make special mention of the Buckley King Funeral church, designed by Hill & Mock, architects. We congratulate the owners of this building for their wisdom in providing the extra funds necessary to make this project an architectural achievement instead of just a building, and the architects for the successful manner in which they have produced in terms of architecture this interesting structure. The exterior color scheme, however, might have been more effective, if it had conformed more with that of the neighboring church.

The College of Puget Sound and the Annie Wright Seminary, both designed by Sutton, Whitney & Dugan, are very good examples of Tudor collegiate architecture. It is refreshing to note the restraint observed in the design of these dignified groups of buildings. The beauty of these designs depends largely in the composition of the masses, the scale and grouping of the windows rather than in the elaboration of meaningless detail. The interiors are not, in our opinion, as well studied and as effective as the exteriors.

The Jason Lee Junior High School, designed by Roland E. Borhek, architect, is a clean-cut design in the Tudor style and worthy of an Honor Award. The vertical divisions in the facade are very well placed and the fenestration particularly pleasing; the scale is good and the character of the building is well expressed.

JASON LEE JUNIOR HIGH SCHOOL, TACOMA. WASHINGTON
Roland E. Borhek, Architect

WEYERHAEUSER RESIDENCE, TACOMA
Meade & Hamilton, Architects

HOUSE OF FRED CORBIT, TACOMA
Silas Nelson, Architect

We would also like to commend the skill in which the alterations to the Tacoma Theater were made by Heath, Gove & Bell, architects. This is an excellent example of a building which had originally considerable merit, being modernized in a sympathetic and architecturally correct manner. The theater is also very interesting and is quite an acquisition to the city of Tacoma.

The Bostwick Shops, by Sutton, Whitney & Dugan, also show what can be done to modernize and beautify an existing building.

Finally, we would like to call attention to the fact that in the past five or ten years in this country, the development of the store front has been rather remarkable, and that merchants are beginning to realize that an exhibit can be emphasized and enhanced by an appropriate architectural decorative frame and background, rather than by the maximum width of plate glass.

ARTHUR L. LOVELESS,
DANIEL R. HUNTINGTON,
DAVID J. MYERS.

CITY PLANNING CONFERENCE

The 20th National Conference on City Planning will be held at Fort Worth and Dallas, Texas, May 7th to 10th. High lights on the conference include:

1. The Texas Legislature of 1927 passed several planning acts, among them a comprehensive zoning act.

2. New York and California have adopted legislation patterned after the standard act proposed by Secretary Hoover's Advisory Committee. Cities in both states have been working under these acts, and the results will be presented at the conference.

3. Zoning was adopted in many cities of the country ten years ago. A very searching analysis of the results will be presented at the conference.

4. Organizing the public mind for action is the subject of Professor Overstreet's contribution at the conference. Professor Overstreet is the author of the very stimulating books "Influencing Human Behavior" and "About Ourselves."

5. What effect has the airport or airway on the city plan? A timely inquiry by John Nolen, the well known city planner, of Cambridge, Mass.

6. The round tables on zoning, on the function of the plan commission, on city planning instruction in schools and colleges, and on street traffic planning are the question periods of the conference sessions. They have been most valuable in past conferences.

LOBBY, BROADWAY THEATER, TACOMA
Heath, Gove & Bell, Architects

LOUNGE, BROADWAY THEATER, TACOMA
Heath, Gove & Bell, Architects

PLANNING CALIFORNIA SCHOOLS

By Andrew P Hill ~ Jr ~ Chief
Division of School House Planning

THE last legislature created a Division of School House Planning for the State of California, which was to function directly under the jurisdiction of the Department of Education. The law provided that all plans developed in territory outside of incorporated cities with a building code, must be approved by the division, and empowered the division to establish its own standards and make its own regulations. The division was also authorized to make surveys of school districts or cities, when requested, and when invited, to consult with cities outside the jurisdiction of the law. The writer was appointed chief of this division, and legally assumed the duties of the office on July 29th, 1927.

To appreciate the need of such a department, it is necessary to inquire into our past practice, diagnose the shortcomings of that system, and take careful cognizance of the factors needing correction. We have ample material at hand to make such an appraisal. It comes from three basic sources:

1. Building standards and ideals as developed through educational research.

2. School surveys, which have secured and evaluated school buildings and systems.

3. Studies made from the standpoint of architectural practice.

Roughly speaking, up to about 1890, American educators were engaged chiefly in convincing the public that an adequate universal public school system was essential to democracy, and that it was worth good hard tax money, practically, as well as ideally. By the end of this period, education was on the verge of scientific research and the investigatory methods we know today, in finance, general psychology, statistical methods, child measurement, subject matter tests, curricula and plant evaluation, etc., were in their infancy—just beginning to give a faint indication of their possibilities as intrinsic aids to a better educational conception and practice.

Relatively speaking, education today is scientific. It has a field of technical literature and a quantity of scientific research under way, matched by no other profession. It has gone a long way toward separating facts from opinions, and in doing this, has almost dealt a death blow to the old spoils system, under, and in spite of which, it was forced to operate during its battle for child rights, and separation from control of political parties. A generation ago it was common to find school boards using their power for personal gain or political control. Today, in California, the usual board is interested in the school for what it can do for the children of the community. In general, they employ principals and superintendents, with a technical training, and base most of their procedure on the results of research done by educators within their own system, or the reports of experts who have been requested to study certain phases of education for them. In this way, the educational needs of a district are often prepared for the architect by the system of a survey committee, and his conception of the plan should be based on the educational facts given him. Reports of this nature, however, often are not made at all, or are made in such a slovenly way as to be of little educational value. Where studies have not been made, the board is, too often, the only body advising with the architect. About 25% of the plans handled through our office to date were developed without any personal contact between the architect and the teachers or principal. In such cases the architect has been sent back to talk to the edu-

cators involved, and asked to predicate his plans on the school's educational needs. The plans may then go to the board, which should consider them much as a board of directors of a commercial company would, questioning the educator and the architect, and passing on them in general, as a poor or good solution of the school's needs.

In order to guarantee the basis on which plans are made, the school house planning division requires architects to present plans at two stages of development:

1. The preliminary sketches
2. The finished plans

With the preliminary sketches, we ask for a copy of the educational requirements given the board, and this must contain, or be accompanied by the data listed below:

I. *Finance*
- The assessed valuation of the district
- The present taxes (including bonds for present building)
  - Elementary (amount, tax rate, date paid out)
  - High School
  - Other bonds
- The amount of money available for this project
- The amount of money the district can still raise by bonding
- Describe the type of building you intend to erect (Class A, B, C, etc.)

II. *The District*
- A map of the district, locating the school and site (Trace map in county superintendent's office, being sure to give the scale)

III. *Site Adequacy*
- A map of the school site (measure site if necessary) including:
  - Contour of site (if not level)
  - Area of site in sq. ft., length and width
  - Orientation
  - Direction of prevailing winds
  - Direction of storm winds
  - Estimated cost of grading
  - Estimated cost of draining
  - Attractive features of environment
  - Unattractive features of environment
  - The number of pupils residing within one mile
  - The number of pupils residing within two miles
  - within three miles
  - within four miles
  - within five miles
  - over five miles
  - Estimated cost of surfacing play areas
  - Water Location Main or well
  - Adequacy
  - Electricity Type of current
  - Gas Pipe size
  - Sewage disposal
  - Sewer available
  - Size of sewer
  - Septic tank Adequacy
  - Is the school satisfactorily located to the people?
  - Is it central to the district?
  - Is it central to the majority of the children?
  - Are bus lines run now?
  - How many?
  - Is bus storage to be provided by the architect at the school?

IV. *The Children*
- What is the present total enrollment?
- What is the A. D. A. for the past five years?
  - 1922-23
  - 1923-24
  - 1924-25
  - 1925-26
  - 1926-27
- If these figures show any marked increase or decrease explain the cause of it

V. *The Type of the School*
- Check the type—Grammar, Elementary, Primary, Junior High, High, Junior College, Special School
- List the grades to be accommodated
- How many "standard class rooms" are requested?
- List the special rooms asked for
- What rooms are on the site and still to be used?
- What rooms are needed now, but reserved for the future, because of lack of finance?
- Briefly describe any especial educational needs the community has

This blank should be filled out by the school authorities and the architect as the nature of the questions require

If the School authorities are in need of advice in answering this simple questionnaire, they should consult with experts. If a survey is needed to establish facts and indicate policies, either this department, or private individuals may be employed. It is, however, essential that this material, definitely indicating the district's needs, come to our office. It is the only means through which the functions to be performed and the district's ability to pay, can be presented to us. The function, of course, is the only excuse for the building, and per se, the architect, and it should be thoroughly established and plainly stated. Where the needs of a district are not properly established, California school bonds have been defeated, because School was not properly located

People had not had the facts presented to them

School board had not asked for enough money

Money asked for was beyond the people's ability to pay

Board was "riding a hobby"

Public did not like the architect's sketches

People questioned the educational fitness of the plans

Building was too expensive in type or arrangement

The Board had "played politics" and lost the people's confidence, etc.

Such objections are evidence of the people's interest in schools. When the facts were neglected, it was possible for an ignorant board to employ an inefficient architect, or sometimes, a contractor, and with their misconceptions and his inability, develop a plan that did more to interfere with, than help, the educational program.

The reader is very liable, at this point, to want to know why the division does not issue standards which boards and architects can be compelled to meet. The answer lies, primarily, in the vast difference between districts in available finances and educational needs.

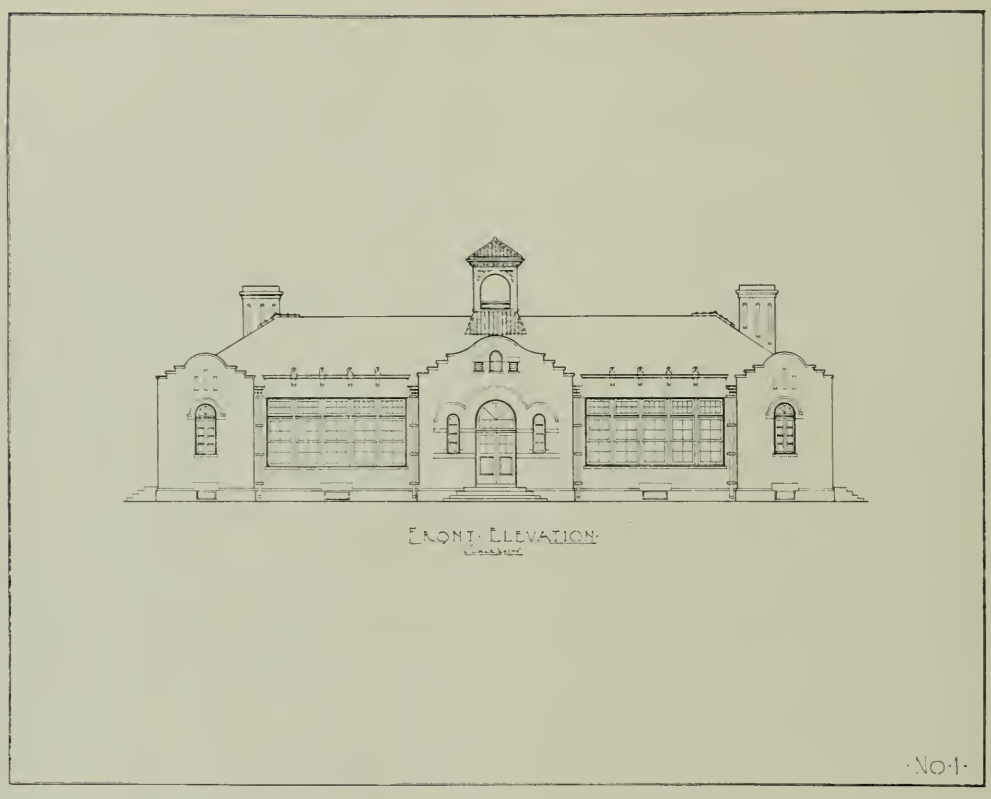
The poorest district, in the poorest county, in California has $2,070 of assessed valuation back of every child in average daily attendance. If this district with 18 pupils were to vote bonds to the limit the law allows (5% of their assessed valuation), they would not have half enough money to build a one-room school with good heat, cloak rooms, a small office, modern toilets, a septic tank system, and a well. The richest district, in the wealthiest county, in California, has $75,136 of assessed valuation behind every child in average daily attendance. Counting thirty pupils to a class room, a bond issue, at ¼ of 1% of their assessed valuation, would net $5,635 per class room, or enough to build a school house, modern and up-to-date structurally, architecturally and educationally. Our system of financing schools is obviously unfair to the child, and premised on reasons entirely foreign to his interests, but it is the law. Until it is changed, the conditions it dictates must be recognized by this department, and each district dealt with on the basis of its financial ability. The division, therefore, makes its own requirements in each case, and tries to base them on the facts of the situation. Thus, the type of construction, the type of plan, the amount of facilities and their kind and quality, must be conceived in sympathy with the finances available. The illustrations accompanying this article display the policy of the department when compromises are necessary. Good class rooms and adequate facilities are placed ahead of fireproofness of construction, artistic design, or permanency of materials. Our department has every appreciation of these factors and, in cutting down, asks architects to protect these features. Thus, a clever architect can often make cheap materials express art. Sometimes just a simplification of style will effect the desired result. In one or two cases this has actually increased the charm of the design. While cheap buildings cannot be made fireproof, they can be made relatively safe for children by confining them to one story, and carefully placing exits and fire extinguishers. Cheap materials, if properly installed, and carefully taken care of, can be made to give a relatively long service.

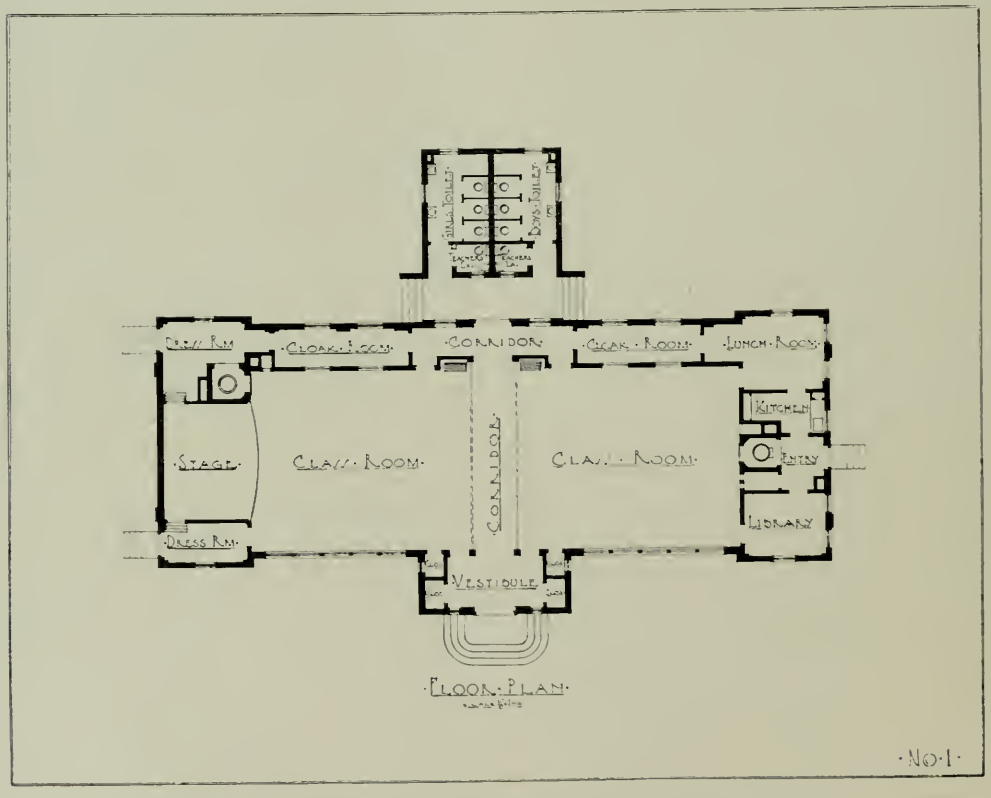
The educational factors are often very peculiar to the community. Manufacturing centers are liable to stress vocational values. Schools for foreign communities must be planned for day and night adult classes, and special facilities provided in the schools to overcome the children's language difficulties, unhygienic habits, poor manners, etc. Some districts double their school population at times of the year when itinerant workers pour in to work at seasonal labor. These and many other factors make each district's needs a study which, when carefully done, is often none too accurate, since it attempts to evaluate factors dealing with the behavior and direction of human beings.

To illustrate the policy of the department, two plans of a school that has passed through our criticism are shown.

Plan No. 1 shows the original layout as conceived by the board and the architect. Our criticism follows:

This district needs space for two classes and an assembly, toilets for the sexes, a kitchenette and an office. These are recognized in the plan submitted. It also needs supply space for the school, supply space for the janitor, and a rest room with lavatory available. To secure these





PLAN NO. 1, SHOWING ORIGINAL LAYOUT OF ARCHITECT

facilities for $12,000 it is obvious that combinations of room uses must be made.

The plan presented is too ornate, in both design and layout. The need of the belfry is doubtful. The exterior decoration is over done. The architectural meaning of some of the motifs used is questionable. Where the elevation ought to express simplicity and refinement, in reality it appears fussy and garrish.

The orientation is poor—west exposure is not desirable in San Joaquin Valley. In hot weather it is practically unbearable. The building cannot be added to without blocking the cloak room light and ventilation and adding too much corridor to get to the next room.

Future additions to this building should be carefully provided for. The assessed valuation per child in school is dropping as the district grows. It will be more difficult to build in the future than it is today. This bond issue, therefore, must leave the building so future additions can be made at a minimum cost.

The entrance vestibule does not lead to the administration office (library). To insure passage across the building two sets of accordion doors are used. This passage leads primarily to the cloak room and toilets. It would embarrass and mislead visitors. Accordion doors should be avoided where possible. In most cases they do not deaden the sound between rooms; are expensive if well made and hung; get out of order easily, when the building settles and the truss adjusts itself; are hard to put blackboards and chalk troughs on and necessitate the use of composition blackboards.

When the accordion doors are opened up a long narrow assembly is made. The audibility in the rear of this room would be questionable. The casings of the accordion doors would interfere. The stage is too narrow for school plays and is "boxed in." No change of scenery could ever be made on it, since there is no free stage space available for extra properties. The stage (4 steps up) is not high enough to insure visibility from the rear of the room.

Two teachers' toilets are not necessary. There is no storage or hopper for the janitor's use. The fixtures for both sexes are identical, and not in good proportion. Urinals are not provided on the boys' side.

The cloak rooms are adequate in size, but poorly arranged for supervision. The left hand cloak room would force the children to countermarch, march across the stage, or enter at the rear dressing room door. Either of these methods would be hard to supervise and create disciplinary troubles. The right hand cloak room is somewhat similarly situated. Both sides violate two fundamental educational principles: (1) cloak room entrance and exit doors should be under supervision from the class room; (2) the use of cloak room facilities should not expose other rooms to the pupils.

The size of the kitchenette is questionable. Isn't it mostly "ette"? This room should be large enough for a committee of three to work in preparing refreshments for a school or community entertainment. In our estimation, the money available precludes a lunch room.

The use of stoves is not desirable. From attendance figures, it is evident that a third room will be needed soon. Now is the time to start out with a permanent heat solution. The department suggests hot water, with some ventilation in the auditorium. Can we not have alternate bids on such a system, at any rate? Where a permanent layout can be had, stoves are undesirable, because: they are dirty; they disturb the teaching process; occupy usable floor space; do not distribute heat evenly; increase the fire risk; make extra work for the janitor in firing, carrying fuel and cleaning up.

The board and the architect have sincerely tried to get a good school plan. Most of the needs of the school are recognized in the plan submitted. Our suggestions deal with the rearrangement of these facilities so that they may better serve the needs of education. We believe a plan can be devised which will correct the faults of the present scheme, at no increase in cost.

After the plan was redrawn twice the layout marked Plan No. 2 was the result. The department sent the following explanations to the board:

The School and the Site

This building follows the natural contour lines of the site and will be economical to build. The entrance to the play areas is good, and the boys' and girls' toilets properly screened. The wall between will be 8″ brick to deaden the sound. Note that the entrances are level with the playground, but under cover from the building. The service doors to the kitchen, janitor's basement and stage, are simple—but adequate.

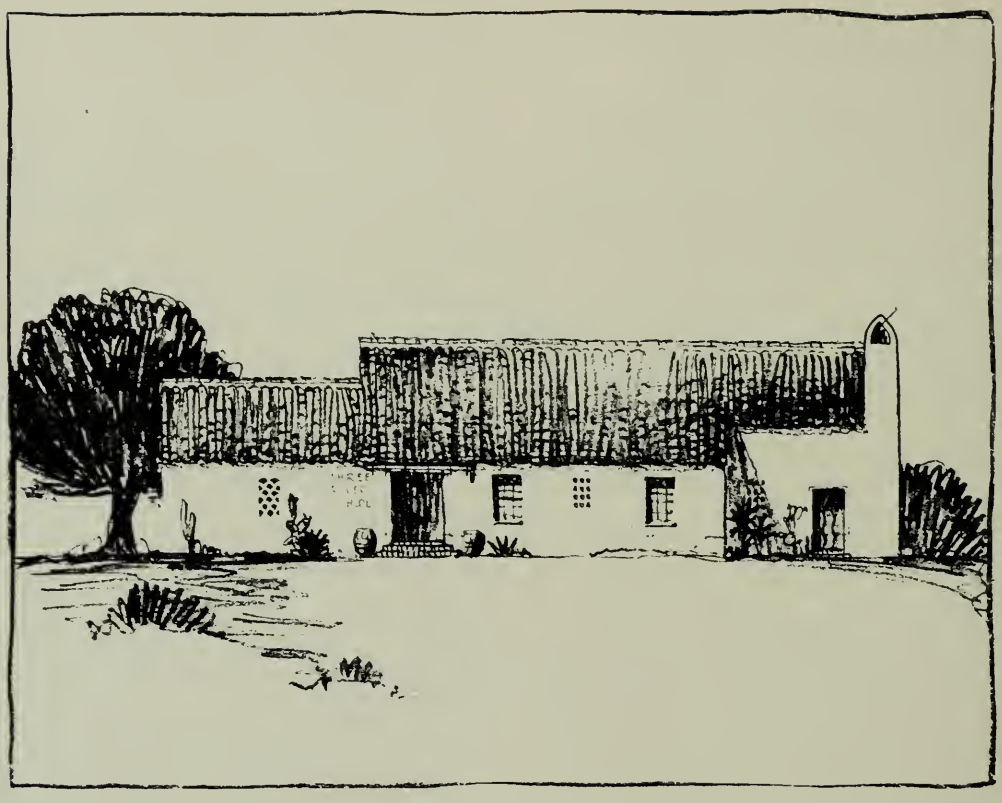
The Type Buildings

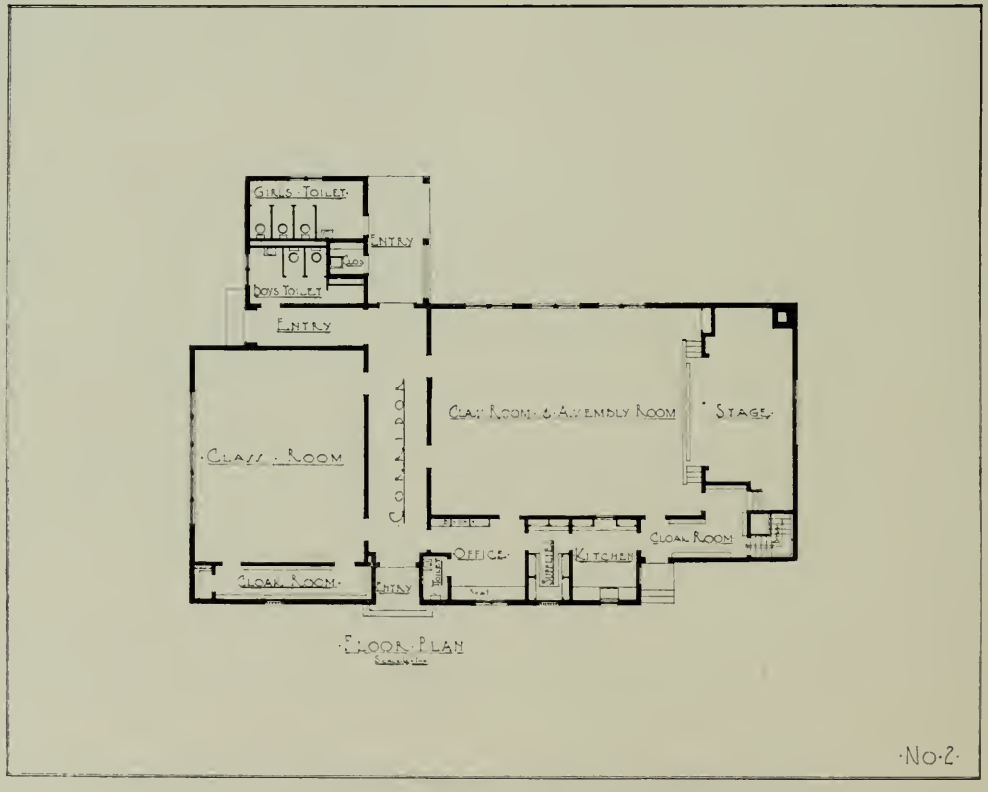
The building is wood, with stucco walls. Roof to be clay Escalona tile, in variations of red and terra cotta. Stucco California, or some waterproof finish. An alternate bid on brick can be taken but I doubt if it will go.

Aesthetic Quality

Mr. —— has contrived to get rid of the large class room window areas, with a great deal of benefit to the front facade. There is a minimum of detail to pay for and yet the building has a very great amount of character. A very minimum of landscaping will enhance this.

Inside the same simplicity will be carried out. The auditorium ceiling and trusses will be exposed (rough wood). The proscenium arch will





PLAN NO. 2, SHOWING CHANGES SUGGESTED BY STATE DEPARTMENT OF EDUCATION

be simple, but dignified, and impressive. The halls will be wainscoted.

Interior Arrangement

The interior circulation is good. As you enter the corridor the office is easy to find. Both class rooms give upon this hall. The toilet entrances are separated from it. The office has a door into the assembly, so that room can be supervised from the office, in case the teacher is called in to answer the phone, render first aid to a child, meet a parent, or what not. The kitchen is thrown en suite with this room to furnish hot or cold water for some sick child, who may be on a couch in the office.

Both rooms have adequate cloak rooms with outside light. Both will have a teacher's closet. One has a supply case and the other will have some drawers under the stage. This room will also have a removable blackboard across the stage front.

The School as a Community Center

In addition to the movable chair desks used by the class, the assembly will have floor space, (and storage under the stage) for enough extra chairs to seat 132 people. More can be crowded in.

When a social or other community gathering is held here, the other class room will act as a hat and coat check room. The toilets are available for use. The kitchen has ample drain and counter space to allow two or three women to easily prepare refreshments. A pass to the assembly will make these easy to serve.

When the stage is used for a farce or a play, there will be room to get around the scenery and to make a change of scene. Women can dress in the cloak room, and men in the basement beneath. Properties can be brought in the rear stage entrance door. Speakers from the audience can come upon the stage from the hall side. The stage will have footlights and a set of floods.

The Building and Future Extensions

The three elements most necessary to enlarge as time goes on will be easy to change. The stage can be enlarged. Class rooms of good exposure can be extended on the rear of the toilets, parallel to the present room. The toilets can easily be increased, by extension outwards.

Heating

The engineers tell us that they can design a hot water system for the building at a very reasonable cost. This is ideal heat. It comes on quickly and is not too dry. It can be wood or coal or oil fired as the trustees wish. Oil firing, of course, will cost additional. The best thing about this system, is the ease with which it can be added to and the low cost of upkeep and running expense.

Ventilation

Will be by reversible window, the system used in most city systems.

Special Subjects

If the school has or gets a teacher sometime who can teach manual training or cooking or sewing, this plan is made to meet such a possibility. A few work benches can be put on the stage, and work could go on under the teacher's supervision. Three or four of the older girls could be given cooking in the kitchen, which is also under supervision from the assembly. The large size of this room permits the teacher to have room for a sewing machine or two and a large sewing work table. Some of the drawers under the stage will act as lockers for this work.

The purpose of this brief article is to put architects in sympathy with the idea that accurate data must be at hand, clearly establishing the functional needs and the finances available, before any real planning can be done. The writer hopes to be able to follow this up with other articles dealing with the use of the educational data, procedure in planning, and devices and arrangements that often meet needs common to many schools.

MY EUROPEAN IMPRESSIONS

By
C O Clausen Architect San Francisco

EDITOR'S NOTE—This is the first of a series of short impressionistic articles by Mr. Clausen, who recently spent a year of travel and study abroad. Mr. Clausen will select some building of historic or architectural interest each month and will describe it in his own entertaining way. Many of the pictures will be from snapshots taken by him in his rambles.

I. MILAN CATHEDRAL

IN THE very heart of the commercial city of Milan, facing the Piazzo del Duomo lies, to my mind, one of the most inspiring buildings in all Europe. Its Gothic architecture is carried to the most exquisite limits with perhaps a German influence in some details. The singular treatment in the main front of Renaissance door and window openings, although somewhat clashing with the true Gothic, blends with the general mass without particular offense.

This structure was commenced in the year 1385 and was finished late in the fifteenth century. It is constructed entirely of white marble with a roof of massive marble slabs supported by vaulting and resting upon fifty-two columns, each twelve feet in diameter.

The building is 477 feet in length, 183 feet in width, and has a dome 220 feet in height, the tower of which is 360 feet above the street. One is obliged to climb 494 steps to reach the highest gallery of the tower, but is well rewarded by a wonderful view of the plains of Lombardy and the Alps. As I undertook this climb I was pleased to notice upon arriving at the main roof level there was a booth where one could purchase fruit and other refreshments, and after a gentle stimulant (there being no prohibition in Italy) I was the better enabled to continue my trip upward. To gaze upon this marvelous roof over the 135 pinnacles and more than 2000 marble statues among the numerous buttresses and arches, gives one a thrill of wonderment long to be remembered.

MILAN CATHEDRAL

With the exception of St. Peter's at Rome and the cathedral of Seville, Milan cathedral is the largest in Europe and can accommodate 40,000 persons. In this place Napoleon was crowned king of Italy in 1805.

In the three massive choir windows there are 350 scriptural pictures executed in stained glass at which one may spend many hours tracing biblical history.

As usual with European churches, the interior is adorned with statues and below the pavements are the graves of noted persons of long ago.

After concluding my tour about the cathedral I descended to the subterranean chapel in which reposes the body of Saint Charles Borromeo, who consecrated the cathedral in 1577. Here is, indeed, a striking contrast from the sights above. An altar of gold and silver, richly decorated, has a movable panel which is raised by a windlass operated by a priest and exposes to view the shrivelled mummy of the saint dressed in gorgeous papal robes adorned with myriads of jewels and a mitre bedecked with magnificent gems resting upon its ghastly head.

(April—"The Tower of London").

Tacoma Honor Award

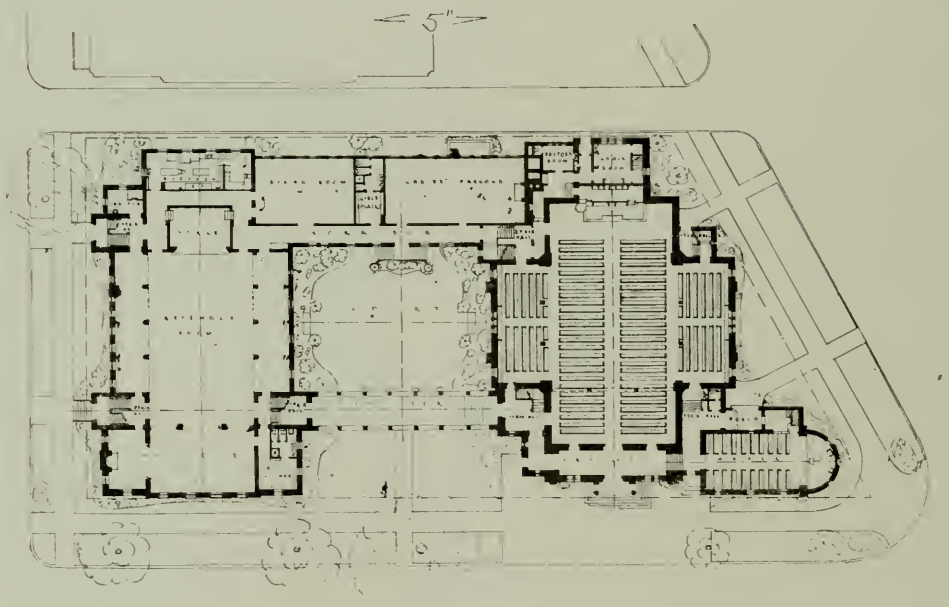
FIRST PRESBYTERIAN CHURCH, TACOMA, WASHINGTON

CRAM & FERGUSON, ARCHITECTS; SUTTON, WHITNEY & DUGAN, ASSOCIATES

FIRST PRESBYTERIAN CHURCH, TACOMA, WASHINGTON

CRAM & FERGUSON, ARCHITECTS; SUTTON, WHITNEY & DUGAN, ASSOCIATES

Photo Chapin Bowen, Inc.



PLAN, FIRST PRESBYTERIAN CHURCH, TACOMA, WASHINGTON

CRAM & FERGUSON, ARCHITECTS; SUTTON, WHITNEY & DUGAN, ASSOCIATES

Tacoma Honor Award *Photo Boland*

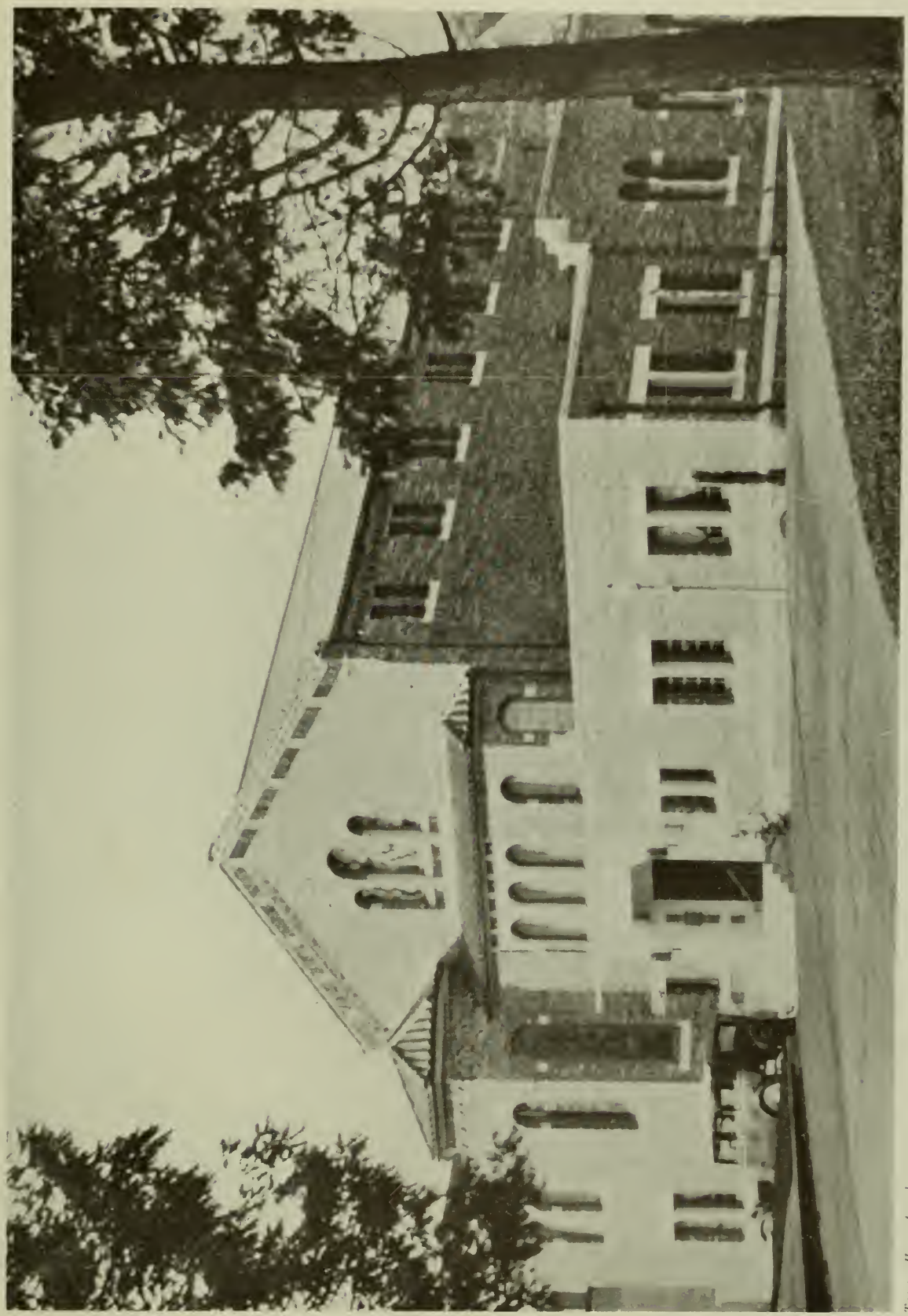
BUILDING FOR THE SALVATION ARMY, TACOMA, WASHINGTON

HILL AND MOCK, ARCHITECTS

Tacoma Honor Award

NORTON MEMORIAL FOUNTAIN, TACOMA, WASHINGTON

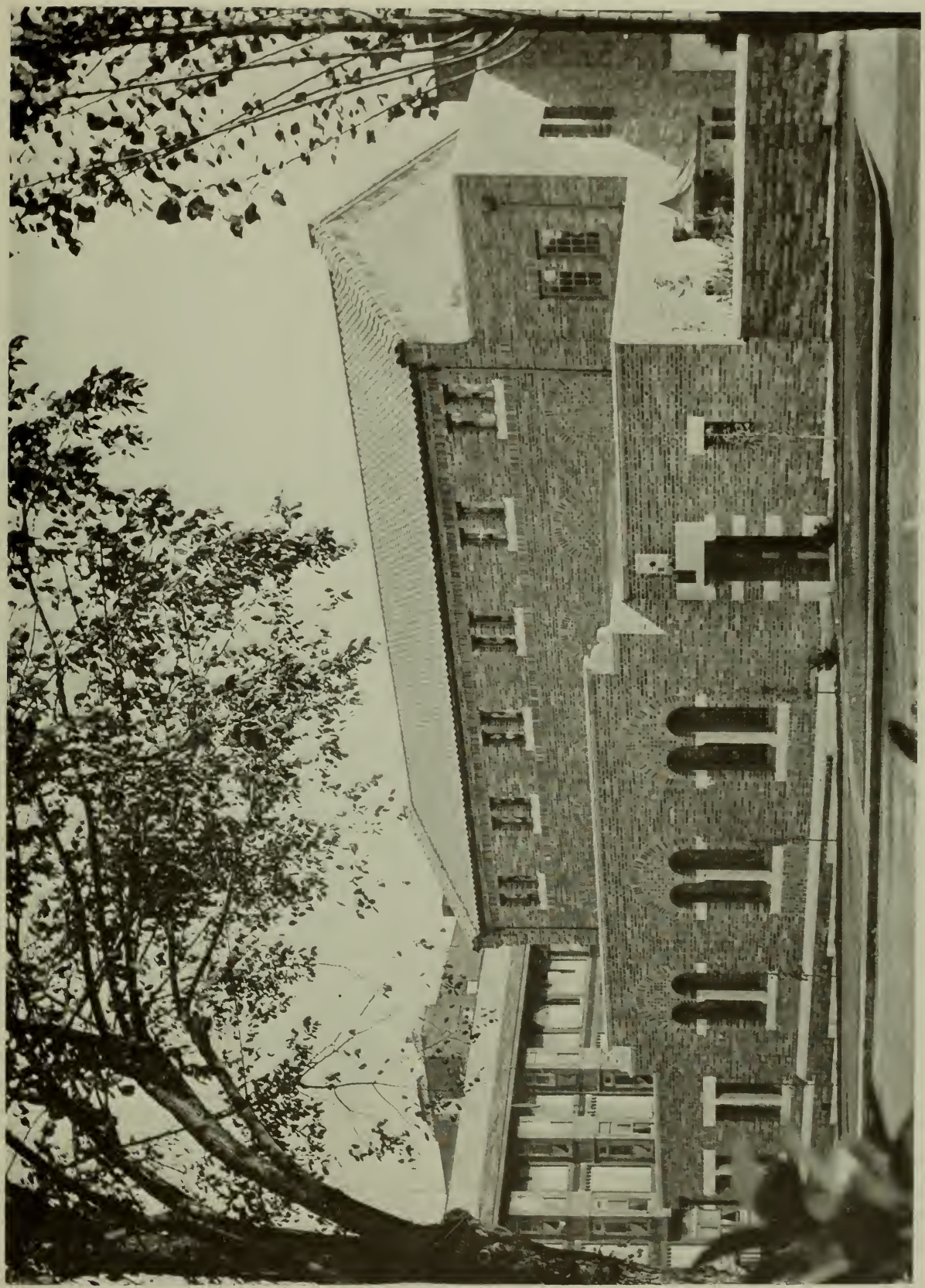
A. J. RUSSELL, ARCHITECT



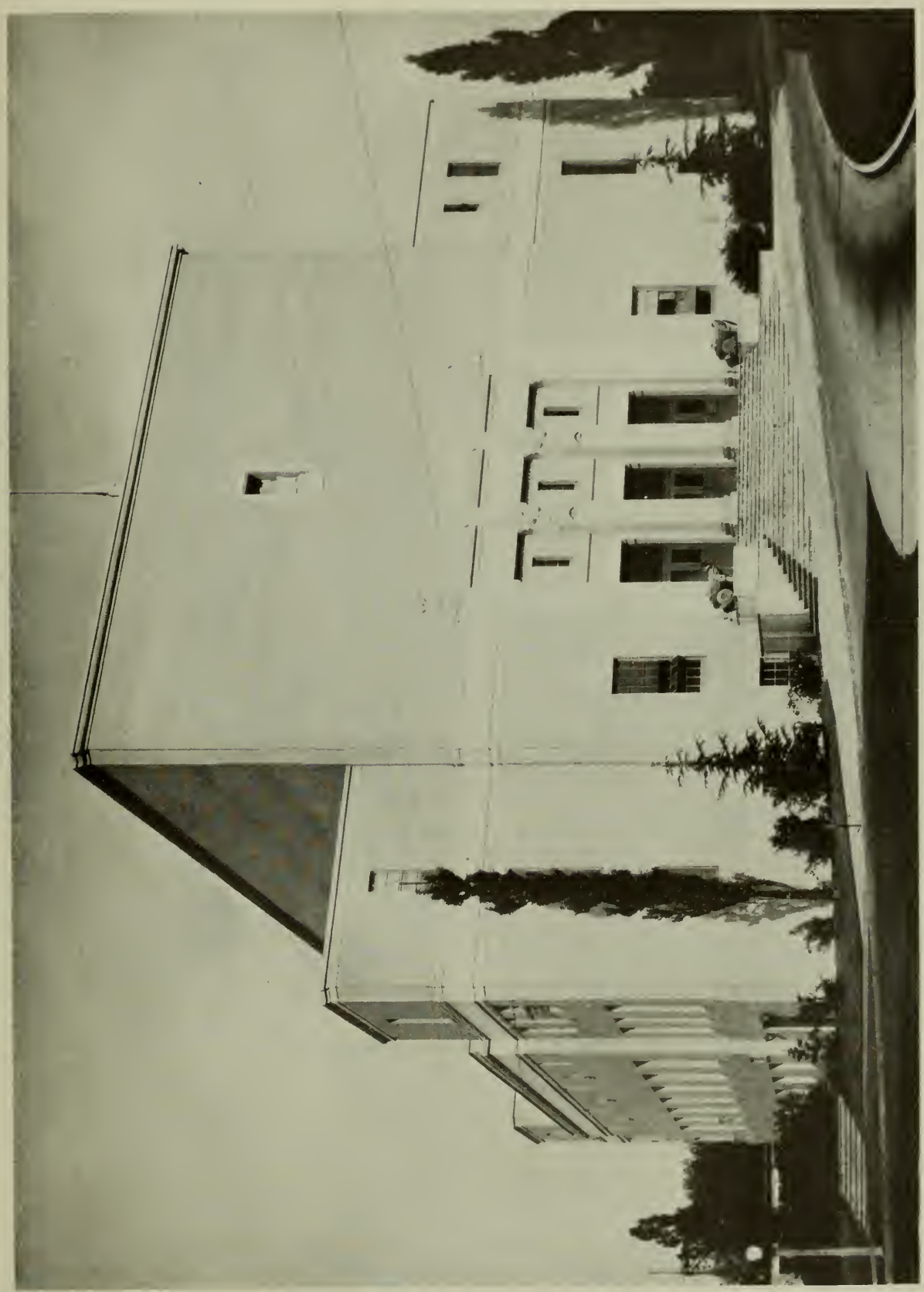
BUCKLEY-KING FUNERAL CHURCH, TACOMA, WASHINGTON

HILL AND MOCK, ARCHITECTS

Tacoma Honor Award



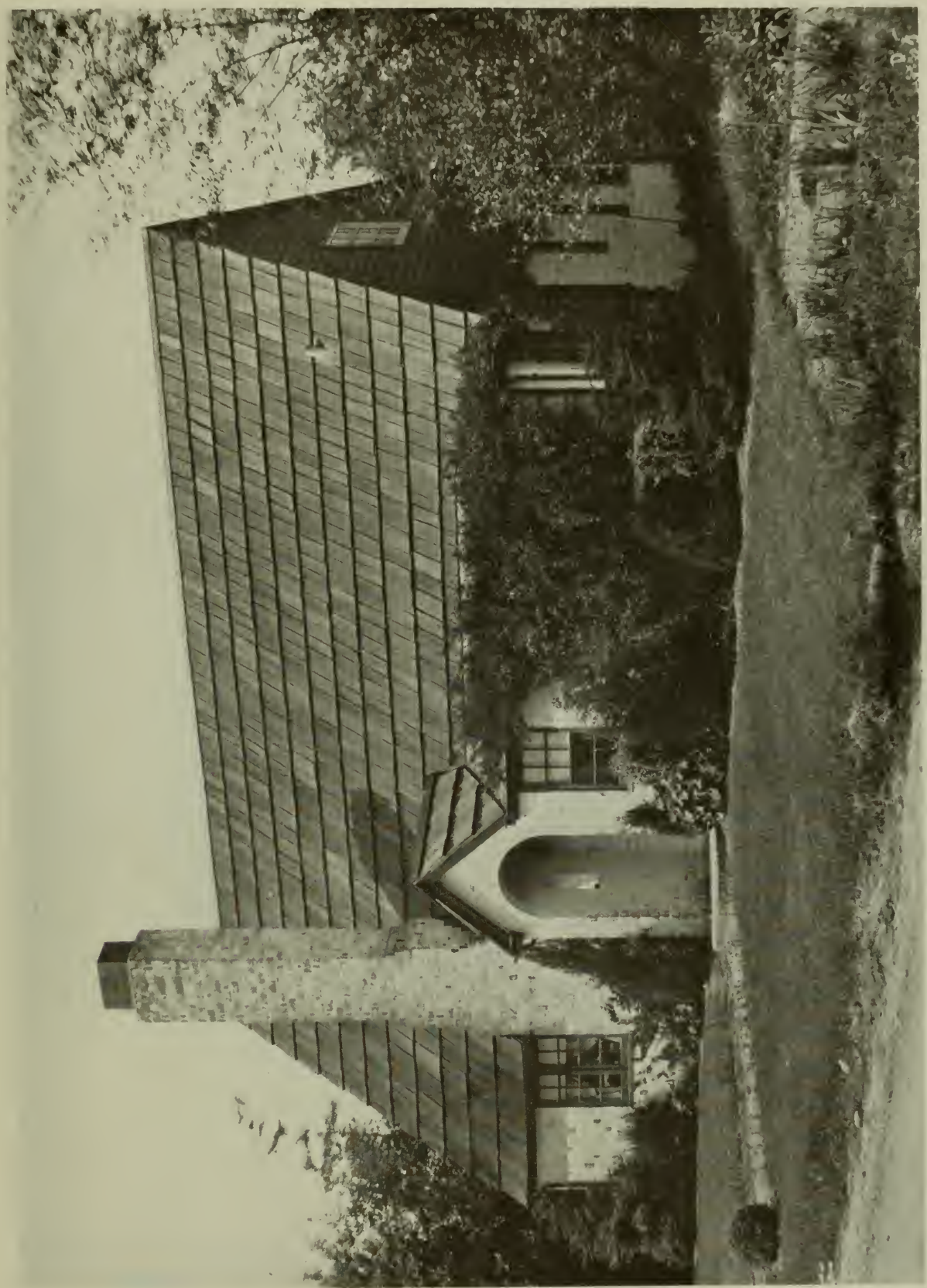
BUCKLEY-KING FUNERAL CHURCH, TACOMA, WASHINGTON
HILL AND MOCK, ARCHITECTS



SCOTTISH RITE CATHEDRAL, TACOMA, WASHINGTON

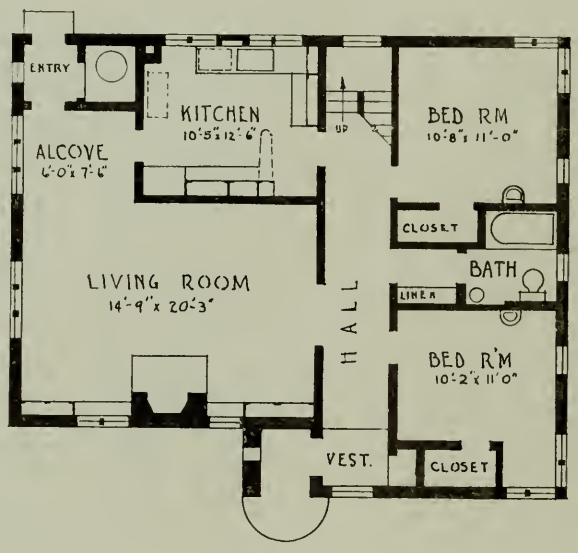
SUTTON, WHITNEY & DUGAN, ARCHITECTS

Tacoma Honor Award



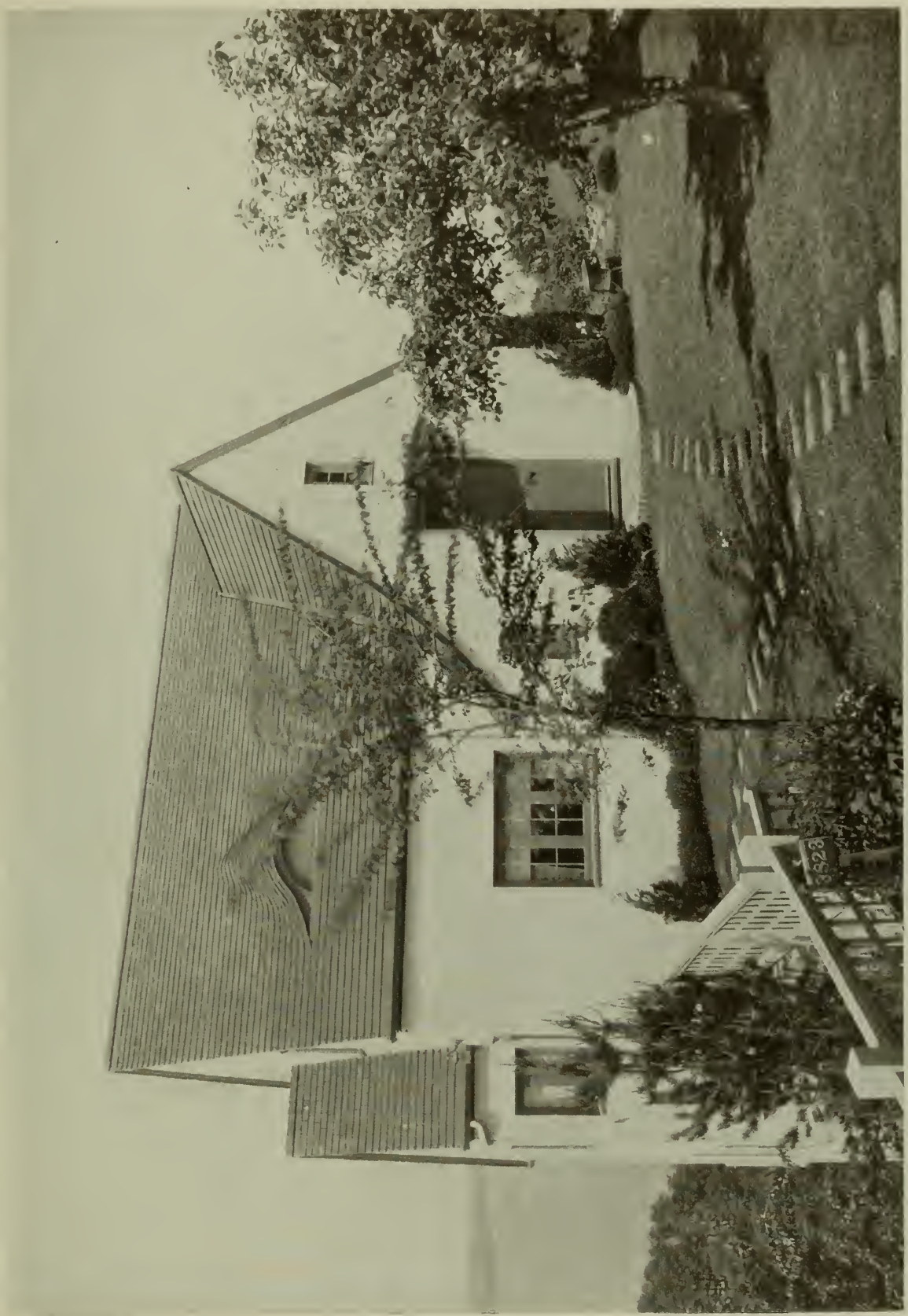
HOUSE OF MR. AND MRS. JOHN E. McGUIRE, TACOMA, WASHINGTON
SUTTON, WHITNEY & DUGAN, ARCHITECTS

Tacoma Honor Award



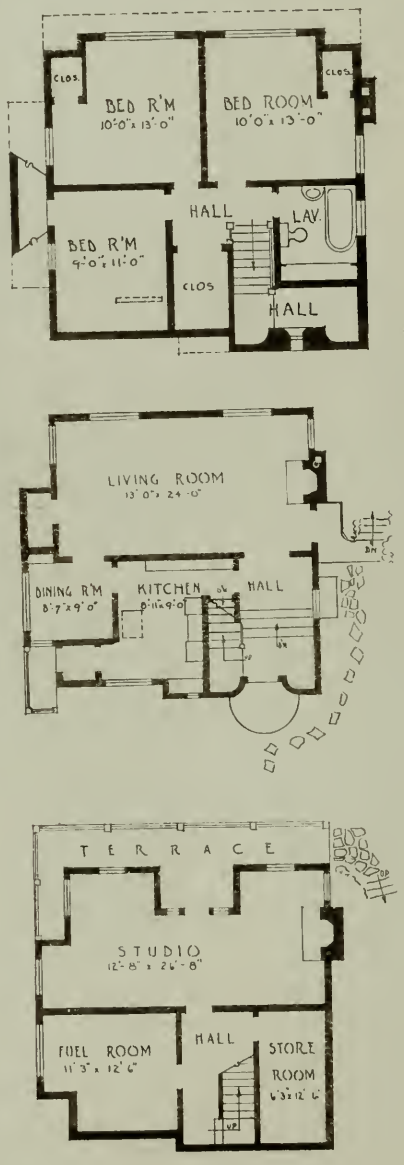
PLAN, HOUSE OF MR. AND MRS. JOHN E. McGUIRE, TACOMA, WASHINGTON

SUTTON, WHITNEY & DUGAN, ARCHITECTS



COTTAGE OF ELIZABETH T. ELLIS, TACOMA, WASHINGTON
SUTTON, WHITNEY & DUGAN, ARCHITECTS

Tacoma Honor Award



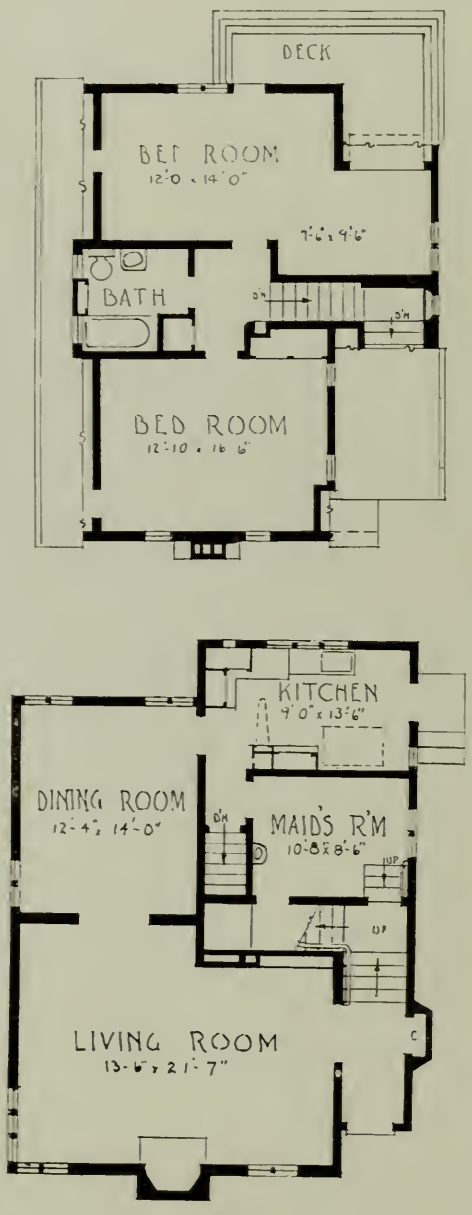
PLAN, COTTAGE OF ELIZABETH T. ELLIS, TACOMA, WASHINGTON

SUTTON, WHITNEY & DUGAN, ARCHITECTS

Tacoma Honor Award

HOUSE OF MR. AND MRS. CHRISTEN QUENLI, TACOMA, WASHINGTON

SUTTON, WHITNEY & DUGAN, ARCHITECTS



PLAN, HOUSE OF MR. AND MRS. CHRISTEN QUENLI, TACOMA, WASHINGTON

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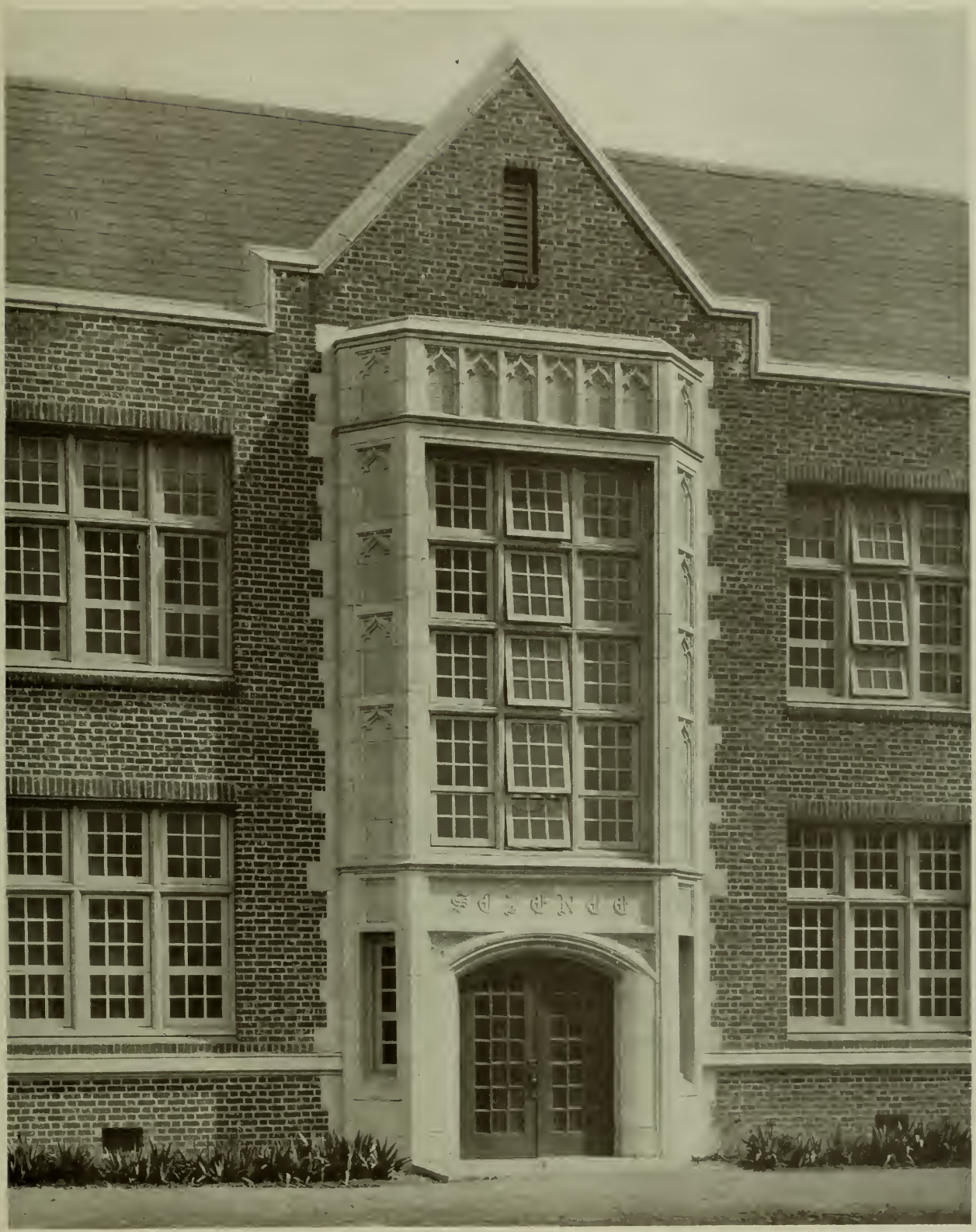

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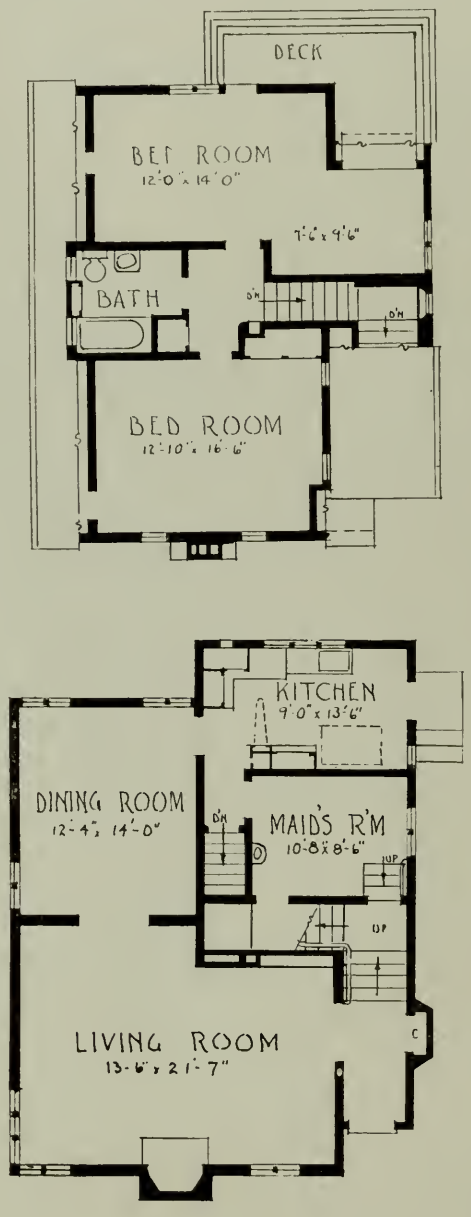

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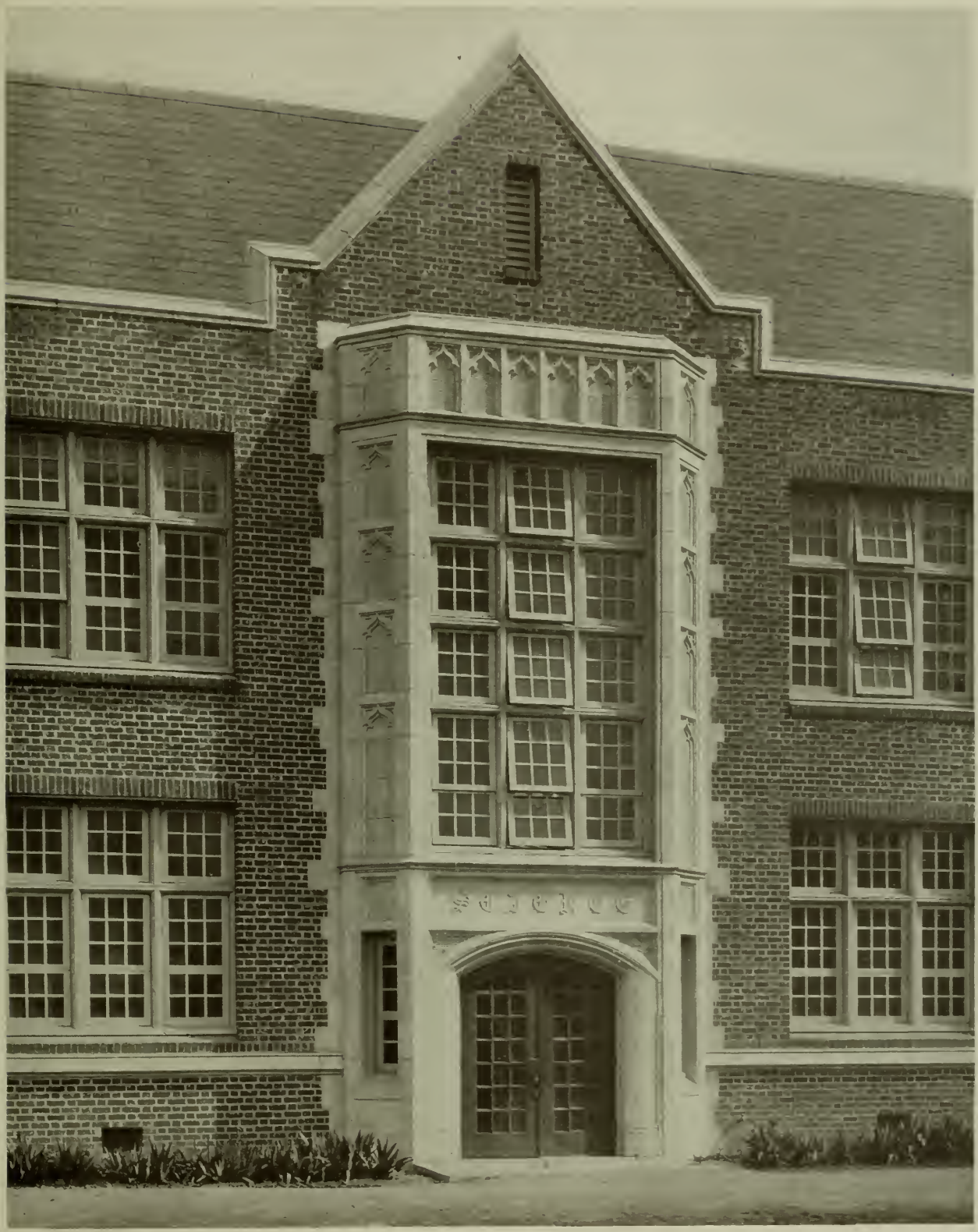

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LANDSCAPE ARCHITECTURE

By Stephen Child — Landscape Architect

LANDSCAPE Architecture: What is it? Some critics say that the practitioners themselves do not know—that it might better be called landscape gardening. Others feel strongly that Mr. Frederick Law Olmsted the elder, the father of the profession, knew what he was about when he selected the name. Let us briefly see if he was not right.

In the course of the slow processes of civilization there have been differentiated and developed many professions; the ministry, medicine, law, engineering, architecture and so on. It so happened that about seventy-five years ago when Mr. Olmsted began his landscape work, it had come about that there was beginning to be a demand in this country for men to do a certain line of work that was intrinsically quite different from that previously carried on by either the architect, the engineer or the gardener, and yet work that embodied some of the principles heretofore utilized by each of these. That great tract of land, now known as Central Park, was to be developed and made beautiful for the purpose of providing "for a form of recreation to be obtained only through the influence of pleasing, natural scenery upon the sensibilities of those quietly contemplating it." It was a new problem for this country, and indeed for any country, for none of the great parks of Europe were originally created for the purpose above mentioned. They are the result of developing land that had originally been set aside as hunting estates, for another and very different purpose, the recreation of the public.

I think it will be generally conceded that New York was fortunate in its selection of the master mind to work out this problem, and that Central Park has been most successfully designed and executed. Mr. Olmsted saw clearly the greatness of the task and the differentiation of this form of design from the work of the gardener, and chose to call it Landscape Architecture and himself a Landscape Architect. Let us, therefore, look into the meaning of these words and see whether they are not well selected and worthy of our respect and of general adoption.

That most delightful and interesting writer, Philip Gilbert Hamerton, says of Landscape; "We use the word in two distinct senses—a general and a particular. In the general sense the word 'landscape' without the article, means the visible material world, all that can be seen on the surface of the earth by a man who is himself upon the surface; and in the special sense 'a landscape' means a piece of the earth's surface that can be seen at once, but it is always understood that this piece will have a certain artistic unity or suggestion of unity in itself." He adds, "although the word refers to the natural land, it does not exclude any human works that are upon the land." The word is derived from two good Anglo-Saxon parts, "land" and the suffix "scape" corresponding to "skip" or "ship" as in the word "friendship," meaning the state or condition of being. Landscape, then, means "the state or condition of being land," —a landscape, meaning land that has a certain suggestion of unity in its appearance. When we come to add the word "architecture," however, the connotation conveys to many people a wrong impression; but it should not, for in its early and primitive meaning the word architect meant simply and solely "chief workman" or "master artisan." It is well, I believe, for us to recall this earlier meaning of the word at the present time.

It has been quite largely the architect himself who was responsible for any wrong impression

that may have developed in the use of the term landscape architect. Many have assumed that, because the word architect is used at all, the term landscape architect means simply an architect who meddles a bit with the landscape immediately surrounding his buildings. Many architects have done this with regrettable results, both to the client and to the profession of landscape architecture. If the architect solves the problem of his buildings successfully, by co-operating with the landscape architect in their setting and surroundings, the net result will be a greater degree of harmony and beauty —better art! Many of the more progressive, thoughtful architects are today more fully realizing all this.

There is another important point and one that has not been particularly mentioned in discussions of the term landscape architect; one to which I have already alluded, namely, that the English landscape designers were engaged almost exclusively in the preparation of plans for country estates. These were of course, not always large, and often were walled in or engirt (girt in) and therefore, in a very real sense, gardens. Mr. Olmsted in 1856, had before him not such a problem, but that of designing a great public park for a large city, something quite different. It was a work of design, a work that could be undertaken and successfully carried out only by a "master artisan in matters pertaining to land." Here was to be developed, and we know how well it has been done, broad peaceful landscape effects, giving the tired city dweller opportunity for restful contemplation and relief from city sights and sounds. These were to be designed and executed where none existed before, and in such a way that there should be no obtrusive evidence of man's elaborate control, and no marring of the pleasing restful effect by such garden elements as beds of geraniums or rare and striking shrubs clipped into formal shapes—in other words, no gardening as we now understand the term. This was what he termed Landscape Architecture. The French landscape designers had already adopted this term, their phrase "architecte paysagiste" meaning landscape architect.

ESTATE OF WILLIAM H. BARTLETT, SANTA BARBARA, CALIFORNIA

Stephen Child, Landscape Architect

Landscape architecture is then, as Charles Eliot, one of Mr. Olmsted's gifted disciples, has well said, "the art of arranging land for use and the accompanying landscape for enjoyment. Landscape gardening is, it seems to me, a term conveying in itself confused ideas, but used, if at all properly, simply to cover that part of the landscape architect's work which has to do with the development of formal or natural beauty by the simple process of removing or setting out and caring for plants. This is quite secondary to the matter of designing a general scheme for the development of land for any given purpose."

It would be a fascinating study to go back through the ages and note the beginnings and gradual development of the principles of landscape design, but space forbids. Suffice it now to emphasize that even in far away Egypt, in Babylon, in Greece and in Rome there were distinct beginnings; that even in the dark ages of medieval times there was a continued groping in this as in other arts. With the cessation of the harsh warlike conditions and the dawn of the renaissance, landscape design entered upon a new and glorious era for now great protective fortress walls were useless and we begin to find country places designed solely for enjoyment and the entertainment of guests, not as retreats for protection from warlike neighbors. Then was developed that perfect thing in landscape design, the Italian Villa.

English landscape design was, as a rule, more human, more influenced by medieval motives, and there was less emphasis placed upon the strictest axial and formal motives, and distinctly less symmetry than in either the French or Italian work. There was a good deal of unity withal, and a very distinctive difference is shown as regards the planting. In the French formal work the gravel paths are the basis of the design and the parterres, fountain basins, pools and other details are laid out or set out, as it were, in the midst of the gravel walks which are always very much in evidence. In the best English work the effects secured were quite the opposite. There is always the background of turf and foliage masses upon which

ESTATE OF WILLIAM H. BARTLETT, SANTA BARBARA, CALIFORNIA

Stephen Child, Landscape Architect

the paths are laid out as a much more incidental feature.

With this very brief and altogether inadequate resumé of the more salient principles of earlier landscape design before us, let us turn now for a few moments to the result of all this as expressed in the landscape architecture of the present day, especially in America. Our problems here are many and varied and far removed in the character of the surroundings, climate and other conditions from almost all of those we have mentioned. The trained landscape architect in America uses his study of these earlier problems, if he has the right spirit, as a guide to correct principles solely. These earlier European landscape designers did this in their own case and were constantly and indefatigably searching for right principles of design applicable to the particular problem at hand. The best of them never slavishly copied others and we should not. We should use these right principles to secure distinctive American types of work.

In the practice of this profession in America today there are many classes of problems; there is for example what might be termed Domestic Landscape Architecture, home grounds and with homes as varied as those of Maine, Florida, the Middle West and California, manifestly no rule of thumb will answer. Our earlier studies of European examples give us inspiration but none of their work do we copy, only the principles there determined.

Then there are public reservations to be designed; greater and lesser parks, squares and playgrounds; their proper distribution and their necessary connecting parkways. Real estate allotments and residential town sites bring up a different set of problems, and all this leads up to the complicated and comprehensive subject of city planning involving the heartiest sort of co-operation between the engineer, the lawyer, the sociologist, the architect and the landscape architect.

All who are interested in city planning must, more clearly than in the past, define the relation of these allied professions to this great problem. The thoughtful are saying with Emerson, "Do your work. It is necessary to say this often, but Nature says it oftener. 'Tis clownish to insist * * * on doing all with one's own hands, ... but he is to dare to do what he can do best, ... To do otherwise is to neutralize all those extraordinary talents distributed among men."

Never has the underlying thought behind good city planning been better expressed than in the words of the eminent English Town Planner, Mr. Raymond Unwin, "When your sociologists, economists, archeologists, engineers and surveyors have studied the question, the putting of all this sum of knowledge into the final column of expression; that becomes an artistic problem, and for this reason; the same rules which apply to the creation of an artistic design are the basis of a convenient and workable city; the same portioning between different parts, the bringing into harmonious relation of the industrial, commercial or residential quarters; the grouping and linking together of civic and governmental centers; industrial and recreational centers, the linking of these together with the main highways of great width to accommodate the main lines of traffic, secondary highways for convenience of communication in detailed parts, and so on, —all this follows the same rules exactly as govern design."

PLANTING WOODLAND GARDENS

FOR those who have timberlands on their property, one of the most delightful ways of making woods charming is by naturalizing beautiful flowers, either indigenous to the locality or introduced from other climates. In large wooded areas the proper treatment is to introduce suitable plants in great numbers in glades and by the side of woodland paths, where the sun will reach them for a few hours of the day. Many of the most exquisite subjects for woodland treatment can be grown from seed, says a writer in American Forests and Forest Life. If the ground is dug over and some new soil introduced, the seed can be scattered broadcast with good results. In such places it is not usually necessary to cover the seed at all, but to sow as nature does, on the surface.

Some of the most adaptable plants for this purpose are varieties of foxglove, willow-weed, poppy, forget-me-nots, lythrum, bell flower and primrose.

Many bulbs are eminently suitable for beautifying the more open parts of the woods. For

immediate effect, the bulbs themselves should be planted in large patches; but for those to whom economy is a consideration, they can be raised from seed. It would not be advisable, however, to scatter such seed broadcast. They should be sown in boxes with other choice seeds. This is rather a slow process, but in a year or more the small bulblets can be transplanted into the woods, which in due time would make a glorious display. Some of the best bulbs for treating in this way are autumn crocus, cannas, snowflakes and hyacinths.

Such schemes for beautifying woodland walks and glades are very common in Great Britain and are just beginning to be adopted in the United States and Canada. The most striking illustration it is possible to mention is the gorgeous show of wild hyacinths in the woods of Kew Gardens, England. In early spring hundreds of thousands of these can be seen in the woodland glades. This is a sight never to be forgotten. The late Queen Victoria requested that these lovely flowers should never be disturbed.

In most places where trees flourish, such schemes should be possible, but in dry and arid climates and where the heat is intense, the effort would scarcely be worth while. Wherever the attempt is made, it is important that as far as possible nature should be copied and plants distributed in a natural way.

ROCK AND WOODLAND GARDEN OF DR. ANDERSON AT GLENN HALL, ENGLAND

ANNUAL HOUSE NUMBER

Small homes will be featured in the Annual House Number of The Architect and Engineer next month; also some of the recent work of Clarence A. Tantau, including several very charming country houses in San Mateo County and Pebble Beach.

THE WORK OF THE CALIFORNIA STATE BOARD OF ARCHITECTURE

By Albert J. Evers
Secretary of Northern District

THE public in California is vaguely aware of the existence of a State Board of Architecture. Some people know that there is a State Board and an examination, but vast numbers know nothing whatever about it. Unless architects happen to be directly interested or have some particular reason for obtaining the information, they hear very little of the activities, the aims and the progress of our State Board of Architecture. A review of the law, the Board's work, and the possibilities of greater benefit to the public and the profession may inspire additional support, which is now probably lacking only through absence of information.

An act of the Legislature of California to regulate the practice of architecture was approved on March 23, 1901, and an Amendment to this act was approved on March 26, 1903. This enactment established two examining boards—one in the Northern portion of the State, with headquarters at San Francisco, and the other for the Southern district, with headquarters in Los Angeles.

The act provides for the examination of any person desirous of practicing architecture and for his certification upon passing examinations and establishing his good character to the satisfaction of the board.

The right to make rules and regulations for the conduct of examinations and the business of the board and other details are also included in the act. It moreover provides that for any person to practice architecture without a state certificate is unlawful and a misdemeanor, punishable by a fine of not less than $50 nor more than $500, and further, that no person, unless certificated, shall in any way state, advertise or by any other device indicate to the public that he is an architect.

The amendment provides for the payment of a yearly license fee and for cancellation of certificates in case the yearly fee is not paid.

Under date of July 20, 1927, the Attorney General of the State of California issued the opinion that without a certificate it is illegal to practice architecture or to put out any sign or card or to advertise under any of the following titles: John Smith, Architecture; Architecture by John Smith; John Smith, Architecture and Building; John Smith, Architecture and Engineering; Architectural Designer; Architectural Engineer; Architectural Draftsman; Architect (Unc.); Designer of Homes; Designer and Builder; Designer (when this designation is used in connection with architectural work).

The district boards, as provided for in the law, have been functioning for more than 26 years, during which time the law has been greatly strengthened by numerous court decisions establishing its position and clarifying its meaning. For instance, the recent decision handed down by the Court of Appeals, 2nd Appellate District of the State of California, held that "respondent practiced architecture in contravention of the provisions of the act regulating the practice of architecture and that therefore the contract under which recovery is sought was illegal and void."

In other words, the courts have held that, unless a client is made fully aware of the lack of a state certificate, the uncertificated practitioner of architecture has no standing in court to collect his claim for services.

It has also been broadened by the sweeping opinion of the Attorney General, opining as

illegal subterfuges of nomenclature which, to the public, are synonymous with the word "Architect."

The law was perhaps passed primarily as a public safety measure, based upon the possible danger from the engineering features of a building, but there is no definite mention of this in the act, and the powers of the board are broad enough to permit the examinations as they are conducted to place equal emphasis on subjects relating to architectural design, theory, history, etc., and the candidate's basic knowledge of structural and sanitary engineering, theory and materials. Though that portion of the examination relating to what might be broadly termed the aesthetic side of the profession was not recognized in law some years ago, the principle of public protection against unsightly structures is being gradually established.

In an article in the Community Builder of January, 1928, Mr. Rollin L. McNitt, Dean of Law of the Southwestern University, quotes many legal decisions showing that the courts of the United States are developing the principle that aesthetic regulations may come under the "police power." To quote from his article:

"In one of the most notable decisions involving the aesthetic principle, Mr. Justice Trent, speaking for the Supreme Court of the Philippines (Churchill v. Rafferty, Collector of Internal Revenue, 32 Phil. Rep. 580), says:

" 'Without entering into the realm of physiology, we think it quite demonstrable that sight is as valuable to the human being as any of his other senses, conduces as much to his contentment as the care bestowed on the senses of hearing or smell, and probably as much as both together.'

"Again,

" 'Objects may be offensive to the eye as well as to the nose or ear. Man's aesthetic feelings are constantly being appealed to through his sense of sight. Governments have spent millions on parks and boulevards and other forms of civic beauty, the first aim of which is to appeal to the sense of sight. Why, then, should not the Government interpose to protect from annoyance this most valuable of man's senses as readily as to protect him from offensive noises and smells?' "

One of the good results of compelling certification of architects has been, and undoubtedly will continue to be, the encouragement of a more thorough education than has been considered necessary in the past by large numbers of those who design and supervise the construction of buildings. Viewed in this light, we find that the public is entitled to protection from the uneducated and improperly prepared architectural practitioner, as much as it is entitled to protection from the shyster lawyer, the quack doctor or the incompetent accountant. And, taking both the safety of life and the protection of property into consideration, architecture affects both life and property—that is, in proper planning for healthful living, in the structural strength and safety of the building and in the wise expenditure of the clients' funds. Improperly designed buildings may deprive the owner of health and wealth over a long period of years without his knowledge. If our architects are properly educated our buildings will be safer, they will be better investments and the aspect of our cities and towns will be more pleasing.

Our present law is adequate to accomplish the desired results and it is important to know that the vast majority of those who wish to practice architecture place themselves willingly and voluntarily before the Examining Board, doing their utmost to meet the standards set for certification. There is a problem, however, which has not as yet been satisfactorily solved, and that is the uniform enforcement of the Law. In the two main centers of population of the State, the Board can exercise its influence and enforce its jurisdiction; but enforcement is scarcely uniform over the entire State. To obtain evidence and enter complaints in the Police Court is not a duty assigned to the Board nor with which they can reasonably be expected to occupy their time. Convictions can and have been secured in the Police Court. For instance, the case of the People vs. Davis, Alameda County, on October 26, 1926, in Judge Tyrell's Court, defendant was found guilty of violating the State Act regulating the practice of architecture and was ordered to pay a fine of $50 or spend 25 days in the city prison. To make the law equitable, however, enforcement should be uniformly applied in the smaller communities as well as in the large cities, and should be brought about by organized effort. The unanimous, organized support of the board by all certificated architects in the State and a slight change in the law which would place violators under the jurisdiction of the Superior Court,

rather than the Police Courts, would do a great deal toward making more effective the beneficial regulation imposed by our law.

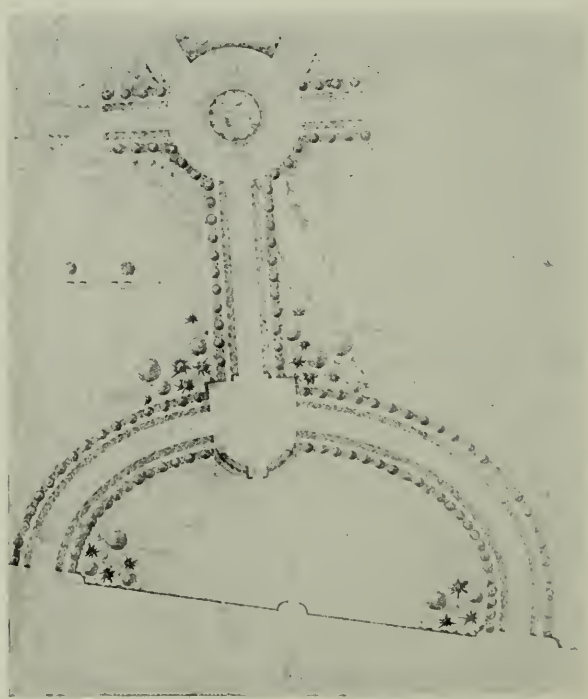
The building industry and the public at large should place their influence and support behind the board, but it is hoping for too much unless the architects themselves make the primary moves.

There has been announcement of the formation of a department of professional standards in the State Government, which would include in its organization all of the existing examining boards for the various professions and occupations. If this department could be so organized as to provide the machinery for the uniform enforcement of our law, it would be the most logical and direct way of meeting the situation. Perhaps by unanimous action of all the professions interested this could be brought about.

The Bar Association has lately been given wide powers and takes upon itself the burden of prosecuting those who infringe upon its rules of conduct. The Medical Association likewise is very active in the prosecutions for the illegal practice of medicine. Architects of California also have a duty to perform by giving their hearty support to the improvement of their profession and devising the method for insuring uniform enforcement of the law.

UNIVERSITY *of* CALIFORNIA ENTRANCE DEVELOPMENT

THE accompanying plan shows the proposed main entrance development on the west campus of the University of California at Berkeley. This has been prepared by George W. Kelham, supervising architect of the university, and J. W. Gregg, landscape architect of the university. There is available at the present time the sum of $100,000 with which to begin this entrance improvement and the development of the main axis of the university in accordance with the Hearst plan. When completed, this will probably be one of the most conspicuous and attractive developments that has taken place on the campus for a long while. For many years the development of the west campus has been under discussion, and the growing importance of University Avenue as one of the main traffic ways of Berkeley, leading from the Bay to the campus, has been an influencing factor in demanding the improvement referred to.



PROPOSED LANDSCAPE TREATMENT, WEST CAMPUS, UNIVERSITY OF CALIFORNIA, BERKELEY
John W. Gregg, Landscape Architect

According to the present plans of the Regents, the work will go forward this spring and will be completed before the beginning of the fall semester.

NOVEL PARKING SPIRAL
to relieve
AUTOMOBILE TRAFFIC CONGESTION

By R R Reed

CHICAGO has taken radical action in dealing with her street congestion problem. Widened thoroughfares and added arteries, having failed even as palliatives, due to their tendency to ultimately attract more traffic, the city has finally banned all machines from the curbs within the 19 blocks of her Loop District. Results indicate at least a partial solution to the problem, and the interest of the country is focused on the experiment. Expected organized opposition on the part of the merchants, however, casts some doubt on the permanence of the plan. Success, at the present writing, appears to depend upon the question of providing adequate and convenient parking facilities for the banned cars.

Among the benefits set forth by the proponents of the ban are: speeding up of traffic from eight to forty-four per cent and a consequent saving of 3655 hours daily for auto users; greater safety for pedestrians; a cut in traffic violations from 400 to 40 per day; cuts in truckage rates from 20 to 35 per cent, and cleaner streets.

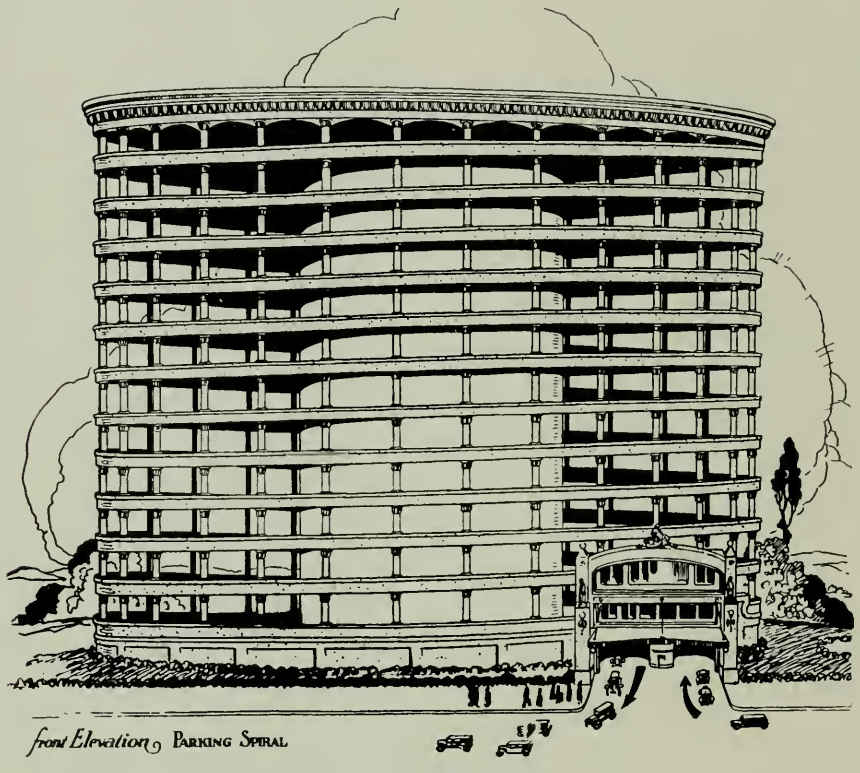
Skyscraper garages are being projected to provide housing for cars entering the downtown district. It was during a recent visit to Chicago that the writer became interested in the possibilities of the skyscraper as a parkway for automobiles, and a consequent relief for the present highly sclerotic condition of our city streets. In his study of the various aspects of the problem, it occurred to him that in order to meet the requirements of the case, some new type of structure must be provided; one which would allow, if necessary, constant streams of incoming and of outgoing traffic, with a minimum of interference between the two. In other words, almost perfect circulation, without backing or cross-cutting, while within the building, was essential. Thus only could the elements of speed and convenience be adequately served. In such fashion, the idea of the spiral parkway with one-way travel throughout, was developed.

The spiral parkway, now undergoing examination by the Los Angeles Motor Highway Commission, San Francisco and other cities, is a street or viaduct approximately one mile long and fifty-four feet in width. It is wound in the form of an ascending spiral about a glass-enclosed core or cylinder twelve stories or more in height. It may also extend from three to six stories beneath the street level. The glass core or cylinder referred to is eighty-five feet in diameter, and its inner space may be used in either of two ways. Possessing as it does the essentials of a circular show case one mile long, it may be adapted for sales rooms for automobiles or accessories. (In this case a centrally located light-well would be necessary.) Or (2), it may be provided with a central turn-table, and used for further parking. In the latter case, approximately thirty per cent would be added to the parking capacity of the building. For the purposes of this article, however, this space is being considered for parking purposes only.

Practical operation of the spiral parkway is simple and obvious after a glance at the accompanying ground-plan and elevation. An autoist, desiring to park, turns into the main entrance A, thence into the outer duct I, proceeding until he arrives opposite a vacant stall in the central parking strip J. Here he makes

a left quarter turn, parks his machine transversely to the line of travel, and follows the walk-way M to the elevators H, where he drops back to the street level and transacts whatever business may engage his attention. When ready to remove the car, he simply makes another left quarter turn, and joins the stream of outgoing traffic at K. (Note that travel is all one-way and that backing and cross-cutting are eliminated.) Through this type of clearance through the central parking zone or strip J, and join the out-going traffic K, in the same manner as if it were intended to leave the building. When the point opposite the entrance-way N is reached, they turn in and make use of the turn-table O to park.

A system of multiple approaches and outlets has been designed, each with an auxiliary subway viaduct, if desired, to carry the traffic away from the base of the structure.



ELEVATION, PARKING SPIRAL

R. R. Reed, Engineer

and circulation, the entire structure can be filled or emptied in ten minutes, estimating conservatively. It is well to emphasize at this point the original purpose of the plan, namely a fast and convenient parking service for shoppers and other transients; a service which will clear the curbs of parked machines in the congested districts.

Where it is desired to park within the glass lined enclosure L, the heavy arrows in the upper left quadrant indicate the path taken in order to reach the centrally located turn-table O. It will be seen that in this case, the machines pass

The design of the structure is such as to lend itself readily to ornament and in this connection, a unique effect in illumination may be produced by outlining the upper sections of the spiral with Neon tubes.

Ventilation, in the colder sections, would be effected through exhaust fans located in the roof. In California, no particular provision is necessary in this connection, as the winding viaduct is in the form of an open balcony. However, the space L, if glass-enclosed, would need to be ventilated. (It is not absolutely necessary that the space L be insulated by glass, or other-

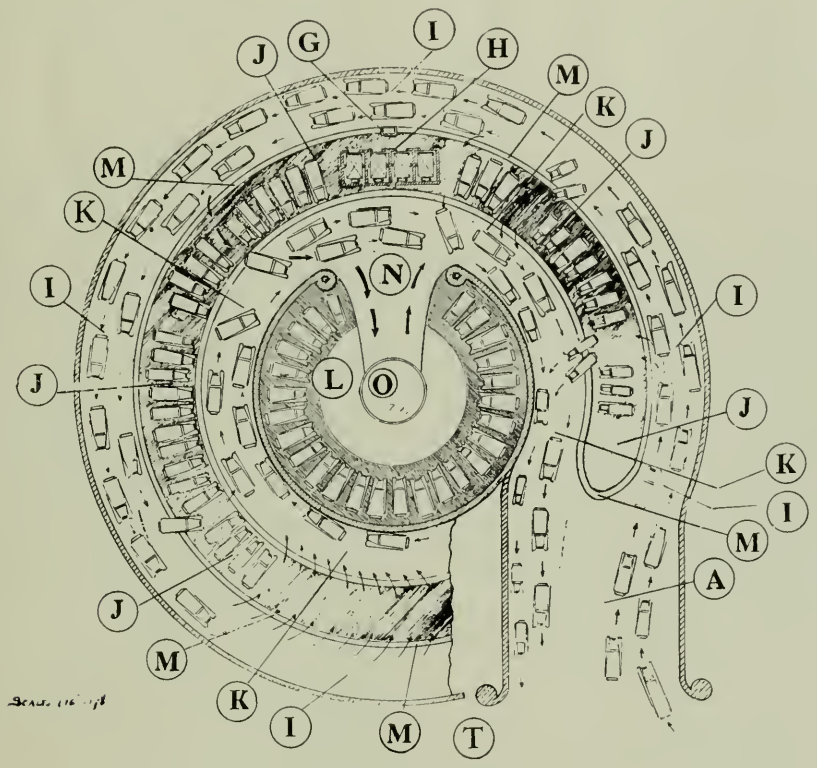
wise, as a curbing of concrete would serve the purpose. This curbing would not need to be more than 30 inches in height.)

Allowing one basement and one sub-basement in addition to the structure shown, the capacity of the building would be slightly in excess of 1260 cars at one time. (90 cars per floor or turn of spiral.)

Again, allowing eight turnovers per day of the parking space gives 10,080 cars as the daily capacity of the building. At twenty cents each, this amounts to slightly more than $2000 per day gross earning capacity; or at ten cents each, $1000 per day gross earning capacity.

A day's operation such as described would clear approximately 20 miles of curbs of parked machines.

Poured concrete construction (using repeat forms) is the type best adapted for the spiral parkway, and it is estimated that from 14 to 18 cents per cubic foot of space, will cover such construction. A structure 12 stories or sections in height and 200 feet in diameter would thus cost approximately $500,000, exclusive of the land values involved, which might range between a half million and a million and a half dollars, depending upon several obviously variable factors.



PLAN, PARKING SPIRAL
R. R. Reed, Engineer

ELECTRIC HEAT FOR BATHROOMS

Portable electric heaters are finding favor with architects and owners for economical and speedy heating of bathrooms when a central heating system is not in operation. An electric heater of from 1200- to 1500- or even 2000-watt capacity will provide heat as desired. The relatively large capacity means quick results, and, as the time of operation is not long, the cost is comparatively small.

Where portable heaters are used, care should be taken that neither cord nor heater are in danger of constant wetting. In any case, operation should be by means of a switch so placed that it will be impossible to touch grounded bathroom fixtures and any live part of the electrical apparatus at the same time.

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And It Was Ever Thus

SOME months ago, in The Architect and Engineer, Louis C. Mullgardt, architect of San Francisco, wrote about his plans for "Bridging the San Francisco Bay" and among the illustrations was a drawing which showed the novel use of bridge piers for hotel or apartment house needs.

Now comes a Chicago architect with "original" ideas along the same line, showing a perspective of a proposed bridge for that city with window-dotted piers and other features not unlike Mr. Mullgardt's scheme. The Chicago papers heralded the idea as quite unique and original!

Ethics and Law

ONE of the problems of professional practice which architects seem unable to agree upon in reaching a final solution, is: when an organization has tentatively engaged an architect and he has done some preliminary work, the leadership is changed, the club is reorganized and another architect is selected to go on with the work, should the new organization ignore the rights of the first architect and, on the other hand, should the second architect accept such a commission knowing the circumstances? The point is made by some that if the first architect is paid for his services there is no reason why the second architect should not accept the commission. Such a stand has been deemed ethical in individual cases but it seems to be more or less a mooted question when a club or organization is involved.

In cases of public ownership there are also several debatable points. For example, very frequently an architect is employed by a school board or city council to design a public building, but before actual construction has been started new officials are elected. The first architect and his plans are ignored and a new designer is employed. In case the first architect has not already been paid the question arises: can the new officials be held liable? If not is it ethical for the second architect to accept the commission until a satisfactory settlement with his predecessor has been made?

City Planning Pays

MODERN city planning means better living conditions, better business, and a more attractive and agreeable city in which to live. These are the unanimous conclusions of a committee of nine nationally known business and professional men who have made a study of the subject in co-operation with the United States Department of Commerce.

The city or town, the committee points out in a special report just published, is a place in which to live, to work, and to play, and should be planned systematically with these ends in mind, just as the location of buildings on a factory site is carefully determined.

In any community the local government, which means the organized citizenship, controls so much land in streets and public places, usually from 25 to 40 per cent of the total area, that it holds the key to the situation. Many communities double their population every 20 or 30 years, and the local authorities, through their control of new developments, or lack of control, can largely determine for good or for bad the conditions that affect not only the present but coming generations.

City planning encourages a better distribution of centers of employment, and thereby reduces the number of employes who must live near the business center. By providing an adequate, co-ordinated street system it reduces delays in transit and so makes wider areas for dwellings available within a given time for travel between home and work. Hence, the success with which the automobile enables city populations to spread out depends largely on good city planning.

While some broad avenues and wide streets are necessary to care for through traffic and to give access to a residential district, minor streets with narrow roadways and inexpensive pavements are adequate for the traffic serving the immediate neighborhood. A narrow paved roadway need not lessen the distance between the houses on the two sides of the street. It permits wider grass plots, and thus makes the streets more attractive. At the same time development of the land is cheaper and more families are enabled to own their homes.

A lawn around the home is the best place for very small children to play, but public playgrounds and athletic fields are needed for organized games for larger children and adults. The increasing dangers imposed by rapidly moving traffic further emphasize the hazard of streets as play space, and the need for enough well-located playgrounds to care for every child. The distance that children of various ages will customarily travel to playgrounds should, of course, be recognized, especially in apartment house neighborhoods where even the smallest children must be provided for. The need of more public open spaces of all kinds is one of the consequences of apartment house living and must be borne in mind as apartment house areas develop.

Public recreation facilities are as important to the village as to the large city. Many a farm community has no public parks or playgrounds; hence the children must be trespassers to play, and adult athletic contests are hampered by inadequate, makeshift facilities. Good playgrounds and athletic fields lead to better physical development and a spirit of team play, while every form of wholesome recreation for adults helps to check unwise movement of population to large cities.

Views and Events

WE ARE BEGINNING TO WRIGGLE OUT from under the accumulated ashlar of the grand manner—or at least to wonder how it may be done. The conventions of American public and semi-public architecture have been as exacting yet as unreal as those of old-fashioned Italian Opera—(or shall I say, as those of the contemporary movie?). We all know how in the old "grand opera" tradition the important acts of life are accompanied by the vociferation of unintelligible words, with one hand on the heart and the other extended heavenward, while trombones blare solemn witness. Just so in America it has been felt that worth-while financial and governmental transactions must develop behind Corinthian columns and sculptured pediments, in a "decor" of coffers, modillions, and eggs and darts.

Business proclaims itself a distinctly modern activity. It is coming to realize that as such it has little to do with the classical stage-setting. Architects are beginning to question if they are properly concerned with any kind of stage-setting.

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WELCOMING AS I DO ANY BLOW TO THE domination of the fundamentalists, I consider the competition for the San Francisco Stock Exchange an important event. The experience is the more agreeable, also, because one is not generally looking for effective protest from this quarter.

Theoretically, competition among architects might be expected to stimulate ideas. Actually, except in rare exceptions, the institution has degenerated into an absurd ritual. This applies alike to the design and its presentation. Competitors seem generally under the illusion that they are still going to school.

Here is one of those rare Competitions to be won by a live design. (Also, it might be observed, by the one which was most compactly, not most expansively presented. Which is a reminder that you can't fool all juries all the time).

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HERE IS A CASE, TOO, WHERE I THINK there can be no reasonable dispute about the award (which has been known to happen in San Francisco). It seems a clear case of the winner's having gotten it.

The plan looks surprisingly direct and simple —some competitors succeeded in making it appear much more difficult. The facade shows—(what sculptors and painters learned long before architects)—that you don't have to wear a toga to attain dignity. There is, I believe, an unwarranted concession to the classic conven-

tion in the matter of "poché." I mean that there is potentially in the design a most admirably contemporary curtain-wall or slab-like quality, which is to some extent belied by inconsistently heavy reveals. It would also be a gain in frankness and actuality to wipe out the several hundred square yards of metal grille obscuring the windows and allow fine simple sheets of plate glass to stand honestly in their own right. Here, however, conditions are with us, for it will probably have to be done when the bids come in, anyway. Apart from these restrictions on details and certain even less important ones hardly worth mentioning, because sure to be ironed out in the course of study, I consider the design a most admirable performance.

The remaining competitive designs were either less successful efforts to do what this one achieves with distinction, or highly accomplished examples of types of things which should be definitely outmoded on the streets of a modern American city.

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MEANTIME HERE IS A LIFE-SIZED JOB for some fortunate sculptor. In view of the extent of the work, and the degree to which the success of the building as a whole will be dependent upon it, it becomes apparent that the best can be none too good. Mindful of this, as well as of the character suggested by the design, one thinks almost inevitably of the remarkable creative work Mr. Lee Lawrie has done in collaboration with Goodhue and others. If, in addition to a first class piece of modern architecture, this competition could make our city the fortunate possessor of an important example of Mr. Lawrie's work, it would surely have more than justified itself. Few enough competitions do half that much.

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SPEAKING OF GOODHUE, INSINUATIONS are already going about that after all the design is only his sort of thing. It is strange how venal a contemporary influence looks to people who would acclaim a cold copy of Palladio. Suppose we have to admit that without Goodhue the design would have doubtless been in some way different. As much would have to be conceded of Goodhue's own work. And copying is another matter. There is a lot of confusion about originality and personality. To be an original orchestrator it is not necessary to invent a new set of musical instruments. But I suspect that contemporary influences are oftener exploited for the cleverness implied to the critic than through a real conviction of transgression. To insinuate borrowing from sources not too recondite gives an appearance of erudition without any of the drudgery of research.

In this case I think the architects can well afford to allow the critics their satisfaction in a little parlor pedantry.

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PHILOSOPHICALLY SPEAKING IT IS doubtless true that what is thought of you is unimportant compared with what you are. Yet in a hustling business world outside opinion can lead quite materially toward or from what you would like to become. To be regarded as prosperous is one of the essential steps in becoming so. Nothing succeeds like success.

For this reason they are right who insist that the San Francisco Building Department is doing the city a distinct disservice in issuing building permits on a basis which minimizes the apparent volume of building compared with that of other cities. The cost of permit is based on the estimated cost of construction. To reduce fees, owners are in the habit of grossly underestimating the values of buildings, and are allowed to get by with it. The volume of building permits issued therefore stands at a distinct disadvantage compared with that of cities where a proper estimate is required or where a flat fee might be charged for a permit irrespective of cost.

We shall give any little boy in the class three guesses as to some of the cities in mind in writing the above.

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EDITORIAL WORK IS AS HAZARDOUS as diplomacy—in principle if not in degree. To be sure, an editorial oversight or indiscretion rarely leads to the slaughter and destruction of war. But in its own field it may produce results relatively as regrettable.

In February The Architect and Engineer reprinted an article from the Christian Science Monitor on the Tendencies of American Taste. In the same issue it ran photographs of a Hillsborough house by A. F. Leicht, self-styled visualizing architect. And, with no more significance to the juxtaposition than mere convenience of make-up, the latter were placed alongside the former. (It must be admitted that

things do happen in magazines in this very casual way).

That seems simple enough. Here is the unfortunate aspect. The house in question represented, to the present writer at least—and he imagines the editors will let the opinion pass without blue pencil—a particularly regrettable example of American taste. It was published because—well, it was published. And now it seems that the pictures have been interpreted as illustrations for the article, and as indicating The Architect and Engineer's idea of progressive American taste!

Well, it just naturally happened, without anybody's foreseeing possibilities. And now we have to protest and explain—which is one of the less agreeable of editorial functions.

I. F. M.

INSTRUMENT RECORDS EARTHQUAKES

[Continued from page 52]

on a long strip of bromide paper carried by a revolving drum. This drum is driven at constant speed by an electric motor so that a permanent record is obtained.

The great advantages of the new instrument are its small size, sensitivity, and the fact that the recording can be done at any desired distance from the seismometer itself. As at present set up temporarily at the bureau, a magnification of 1000 is easily obtained with an ordinary galvanometer.

This could be increased to 20,000 if desired. The advantage of no mechanical multiplying system with its high friction losses is obvious.

To obtain a complete record three seismometers are necessary, the first for recording vibrations in a north and south direction, the second east and west, and the third up and down or vertical. Work on the development of a vertical component seismometer is in progress.

The instrument has been developed in the bureau's electrical division under the auspices of the Carnegie Institution and with the cooperation of the Coast and Geodetic Survey. The Coast Survey is the government's authority on earthquakes and the instrument will be turned over to that bureau shortly for an extended field test.

A POSSIBLE CURE FOR LIEN LAW GRIEFS

During 1927 a proposed statute on the subject of "Statement of Condition" of title prior to the beginning of building construction was placed in the hands of various interested representatives of the building industry for their consideration. The text of the proposed statute by J. W. Morin, counsel for the Pasadena Builders Exchange, is as follows:

"Prior to the beginning of any work or construction, alteration, addition to, or repair, either in whole or in part, of any building, wharf, bridge, ditch, flume, aqueduct, well, tunnel, fence, machinery, railroad, wagon road, or other structure, under such circumstances that a right of mechanic's lien might arise in favor of persons who furnished labor and materials, or labor, or materials, contributing thereto, and not more than ten (10) days prior thereto there shall be filed in the office of the County Recorder of the County wherein said real property is situate, a notice in writing duly verified upon the oath of the owner or some other person acting for and on behalf of the owner and with his authority, having knowledge of the facts, which notice shall be called a notice of intention to build; said notice shall be in writing, shall contain a legal description of the property upon which it is proposed to erect said improvement sufficient for the ready identification thereof, the name and address of the owner or owners thereof, and the nature of the so-called owner's title, whether the same be in fee or held under contract or otherwise; also the names and addresses of all persons holding encumbrances against said property and the amount and nature thereof, and also a statement as to whether or not the amounts represented by the obligations referred to in said encumbrances have been advanced or not and if not, in general terms the conditions under which said advances are to be made. Any persons who shall enter upon the erection of a building or improvement or other structure under the terms of this act, either as owner or contractor, without the declaration of intention to build having first been recorded, shall be deemed guilty of a misdemeanor, and any person who wilfully makes a false statement in said declaration of intention, or shall conspire to furnish a false statement in a declaration of intention to be recorded, shall be guilty of a misdemeanor, and their right, title and interest, if any, in said property shall also be subordinated to any other claimant who may be injured thereby. Nothing herein contained shall be deemed to require the recording of any notice of intention to build in the case of work initiated under the authority of the state, or any county, city and county, city, or other political subdivision whatsoever."

This proposed statute is commonly talked of now as the "Notice of Intention to Build." It was not the thought that the exact detail of this proposed law is of importance as it now stands but that the idea underlying the law is sound and that it should be embodied in legislation of the State in 1929 session. That every effort will be made to put the measure over is vouched for by Secretary Geo. W. Israel of the Pasadena Chapter, who believes its passage will help to cure many of the sore spots in the present lien law.

THIRTY STATES NOW LICENSE ARCHITECTS

Thirty states now have architects' license laws protecting the owner against risky building, and assuring him of the service of competent men. These states are as follows: Arizona, California, Colorado, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Louisiana, Michigan, Minnesota, Montana, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin.

WITH the ARCHITECTS

ARCHITECT ASKS BIG FEE

Architect's fees on a $500,000 home, totaling $50,617, are asked in a lawsuit filed in the Superior Court at Redwood City by Houghton Sawyer, San Francisco architect, against Robert B. and Jennie Henderson of Hillsborough.

The plaintiff alleges that a contract for the erection of a palatial residence was entered into on April 11, 1927, in which it was agreed that the architect was to receive 10 per cent of the cost, as fees.

After preliminary plans had been drawn at a cost of $18,150, the defendants repudiated the contract, Sawyer alleges. For breach of contract he asks $50,000.

In a second cause of action, the plaintiff asserts that a contract for the construction of a tennis court at the home was entered into in September, 1927, on which he seeks $617. No payments have been made on either contract, Sawyer alleges.

IN FAVOR OF ARCHITECTS

Members of the board of trustees of the Galt, California, School District are ordered to pay the claim of $1296 made by Davis, Heller & Pearce Company, architects of Stockton, under the terms of a writ of mandate issued recently by Superior Judge J. O. Moncur.

The architects had served in the construction of the Galt Union High School building up to December, 1926, when the school board terminated their services with the explanation that there was no money in the district's funds to pay their claim.

In a previous suit the architects had secured judgment for the sum, but the school board refused to pay, claiming that money secured for school purposes in one year could not be used to pay for services rendered or supplies furnished the previous year.

WOULD END FRIENDLY CONTROVERSY

To hasten the end of a friendly controversy between the city of Burlingame and E. L. Norberg, San Francisco architect, over the latter's contention that the cornice on the south side of the city hall overhangs on his property and interferes with plans for the construction of a building, the Burlingame city council has ordered City Engineer James S. James to make a survey of the city property. Considerable argument over Norberg's legal ownership of the property in question, a creek, and his rights in placing a building there, has ensued for the past month.

COUNTRY CLUB BUILDING

A contract has been awarded to Taylor & Jackson for the construction of a new building for the Claremont Country Club, Oakland, to replace the one destroyed by fire. The contract amounts to approximately $240,000. George W. Kelham is the architect.

WILL STUDY EUROPEAN FORESTS

To exchange ideas with the greatest leaders of forestry and outdoor life in Europe and to study the problems of European forests, a group of members of The American Forestry Association, Washington, D. C., and others vitally interested in forests, parks and wild life, are planning to sail from New York on June 30. The tour will include France, Germany, Switzerland, Finland and Sweden.

This is probably the most progressive step yet taken to bring conservationists of the two continents together in the cause of the forests and outdoor life, as the party will be received by representatives of foreign governments and the tour of the foreign forests made under their direction and leadership.

Among the famous forest areas to be visited is the world-renowned Black Forest of Germany, an outstanding example of forestry as practiced abroad. The Americans will also see the famous Forests of Fontainebleau, in France, and the great spruce timberlands of Sweden and Finland.

TRAVEL COURSE IN ARCHITECTURE

A group of art and architecture students will constitute a traveling class of college men and co-eds this summer, when a travel course in architecture, painting and sculpture, headed by A. C. Weatherhead, dean of the school of architecture of the University of Southern California, tours Italy, France and England, and in addition attends the Sixth International Congress of Art at Prague, Czecho-Slovakia, which meets only every four years. Acting as chaperon and travel-guide, Dr. Mary S. Crawford, dean of women and professor of French on the Trojan campus, will also accompany the mobile study-group.

HEIGHT OF A BUILDING

"The true economic height of a structure is that height which will secure the maximum return on total investment (including land) within the reasonable life of the structure, under appropriate conditions of architectural design, efficiency of layout, light and air, 'neighborly' conduct, street approaches and utility services." That is the definition given the San Francisco Commonwealth Club's City Planning Section by Charles Smith of the Building Owners' and Managers' Association in a recent survey of the tall building situation.

PASSING OF PERSEO RIGHETTI

Perseo Righetti, aged 56, early San Francisco architect, passed away February 7th, after a short illness. Mr. Righetti was formerly associated with the late August G. Headman, practicing under the firm name of Righetti & Headman. During his career as an architect Mr. Righetti designed many San Francisco structures, particularly apartment buildings.

PERSONALS

FRANCIS J. CATTON, architect, formerly of Los Angeles, announces the opening of offices for the practice of architecture at 358 Sutter street, San Francisco. Mr. Catton was formerly architect for the Los Angeles Board of Education.

REDDICK H. BICKEL has been issued a certificate to practice architecture in the state of California. Mr. Bickel is a graduate of the School of Architecture, Columbia University, and The Ecole des Beaux Arts, Paris. He has established offices at 12 Geary street, San Francisco.

CHAS. B. WING of Stanford University, California, has been selected by Fred G. Stevenot, state director of natural resources, as chief of the division of parks of the Department of Natural Resources. Mr. Wing will maintain headquarters at Sacramento. He is at present executive head of the Department of Civil Engineering at Stanford.

CARL E. GRUNSKY, San Francisco engineer, has been appointed by Secretary Herbert Hoover as a member of the American Committee to the World Congress of Engineers to be held in Tokyo in November, 1929. The purpose of the conference, the first of its kind ever held, is to promote international co-operation in the study of engineering science and problems in all its branches.

MILTON M. FRIEDMAN, architect, announces the removal of his offices to suite 1, Interstate building, 6001 Santa Monica boulevard, Los Angeles.

The partnership of STOREY & DE LANGE, architects of Watsonville, California, has been dissolved and the new firm name is DE LANGE & COLLINS, J. H. De Lange having become associated with Allen C. Collins who has been practicing in Santa Cruz since 1919. The new firm, whose offices are in the Pajaro Valley Bank building, Watsonville, would like to receive manufacturer's catalogs, building material samples, etc. Messrs. De Lange and Collins have quite a little important work under construction and on the boards in Watsonville and vicinity.

ROBERT G. SPROUL, comptroller of the University of California and GEORGE W. KELHAM, University architect, recently paid a visit to the large Eastern cities, gathering ideas for possible incorporation in the plans for the International House, a new building to be erected in the University Campus from funds donated by John D. Rockefeller Jr.

C. O. CLAUSEN, architect, and A. D. DISSTON, contractor, have been named members of the San Francisco Advisory Board of Reappraisal, succeeding Philip Paschal and Paul Sinsheimer, resigned.

ROLAND E. COATE, architect of Los Angeles, was awarded the "Medalla de Plata y Diploma" at the meeting of the Pan-American Congress of Architects at Buenos Aires, according to advices received from that city. His work, for which he was awarded the medal, was the Stafford Bixby residence at South Pasadent, which was illustrated in this magazine about a year ago. Mr. Coate also received one of the 1927 honor awards of Southern California Chapter, American Institute of Architects, for this work.

DEWITT MITCHAM, San Bernardino architect, was seriously injured early last month in an automobile accident in which he suffered a fractured skull.

H. M. KEENEY, architect, has opened an office in the Burton Hotel building, Nogales, Arizona. Mr. Keeney would like to receive catalogs and building material literature from California and Eastern manufacturers.

LIONEL H. PRIES, architect, has terminated his San Francisco practice to join William J. Bain in partnership. All future professional communications should be addressed to Messrs. Bain & Pries, Liggett building, Seattle, Washington.

NOTES OF THE LANDSCAPE ARCHITECTS

Arthur Cobbledick, landscape architect of Oakland, is now completing the development of the grounds of the Frank M. Shallue estate, adjacent to the famed Joaquin Miller home. Eight acres on the crest of the foothills affords a villa site for the fifty-thousand dollar Spanish type residence which is almost ideal. F. H. Slocombe, Oakland architect, designed the home. Among the many landscape features, most attractive is the walled patio where banana trees, palms and tree ferns flourish through summer and winter. Ample recreation facilities provide for tennis, croquet, clock golf and horseback riding over a quarter mile of scenic roadway within the property. Mr. Cobbledick announces the opening of his studio and office at 1670 Mountain Boulevard, Oakland.

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Messrs. Cook, Hall and Cornell of Los Angeles announce the removal of their offices to the tower of the Wilshire Central building and a change of the firm name which now includes Mr. Ralph D. Cornell.

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Stephen Child, landscape architect with offices in San Francisco, and President of the Pacific Coast Chapter of the American Society of Landscape Architects, recently addressed the San Leandro Chamber of Commerce on the subject of City Planning, and is in consultation with the City Planning Commission of that city relative to the development of a park bordering San Leandro Creek. This event is one more evidence of the growing interest of the smaller communities of the state in city planning and landscape architecture as it concerns the development of public parks and playgrounds.

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Professor John W. Gregg of the Division of Landscape Design, College of Agriculture, University of California, has been named a member of the national committee on professional registration of the American Society of Landscape Architects. The purpose of the committee is to consider the possibility and desirability of having some means of registering technically trained landscape architects, in order that the public may have some definite method of differentiating between the professional designers and simple gardeners.

LEADS WORLD IN ARCHITECTURE

America leads the world today in architecture, declared Percy W. Darbyshire, London architect, in San Francisco on a visit following a trip across the continent.

He was viewing San Francisco's skyline from his window at the Clift Hotel as he spoke. He said:

"Americans certainly have shown more originality in architecture than any other present day people. The skyscraper is an American product, and it has evolved from an ordinary boxlike building into a thing of beauty.

"The characteristic feature of architecture in this country is simplicity. But beauty is in simplicity.

"I always enjoy my visits to America because there is always something new to see here."

Darbyshire considers San Francisco one of the most beautiful cities in the world. To appreciate this beauty on a large scale, he says, one must view the skyline from the bay and survey the city from the summits of its several hills.

TO SYSTEMATIZE OFFICE WORK

The Drafting Room and Office Standards Committee of San Francisco Chapter, A. I. A., composed of E. L. Norberg, chairman, Geo. A. Applegarth, Geo. W. Kelham, G. Albert Lansburgh, C. F. Maury and Chas. Peter Weeks, are working out a number of practical ways and means of standardizing, simplifying and making more complete and systematic the architect's office work and, through the use of standard symbols and scientific methods, eliminating wasted effort in the drafting room and materially assisting in the compilation of more accurate and complete working drawings, so that guessing by estimators and extras on the job will be eventually eliminated.

BAKEWELL & WEIHE, ARCHITECTS

Announcement is made of the co-partnership between John Bakewell Jr., formerly of Bakewell & Brown, architects, 251 Kearny street, San Francisco, and E. E. Weihe, the latter for many years a member of the staff of Bakewell & Brown. The firm has offices adjoining the office of Arthur Brown Jr., at 251 Kearny street. New work being turned out includes a six story and basement Class A office building to be erected on Pine street, between Leidesdorff and Montgomery streets, San Francisco, for the Phoenix Assurance Company of London, for $100,000.

OPEN OAKLAND OFFICES

Announcement is made by Messrs. Sidney B., Noble and Archie T. Newsom, architects, of the removal of their San Francisco offices, formerly at 14 Montgomery street, to the Federal Realty building, 1615 Broadway, Oakland. The firm has more than $200,000 worth of residence work under construction or on the boards in the East Bay district.

MEMORIAL HOSPITAL

Myron Hunt and H. C. Chambers of Los Angeles have completed plans for a $200,000 hospital for the White Memorial Association, Los Angeles. The building will be four stories and of reinforced concrete.

THEATER WILL BE UP TO DATE

The Fox theater, now being erected in San Francisco, will have the most modern systems of heating, ventilating, plumbing and electric wiring that it is possible to provide. The electrical equipment of the stage will be the most complete and elaborate in the country and it will be possible to stage any kind of a show, be it vaudeville, opera or drama. The projection room will be equipped for modern projection devices and talking pictures.

The entire heating, ventilating, plumbing, fire protection and electrical installations were designed by Charles T. Phillips, consulting engineer of San Francisco. Thomas W. Lamb of New York is the architect.

A PLANETARIUM

The committee in charge of the fifteenth competition to determine the winner of the Francis J. Plym Fellowship in Architecture for 1927-28 in the Department of Architecture, University of Illinois, has drawn up a most interesting program proposing as the subject "A Planetarium." The subject is somewhat unusual. The competition will be held in two parts, the preliminary during January and the final probably during February and March, and will be open to all graduates of the Department of Architecture of the University of Illinois who are American citizens of good moral character and who are under thirty years of age, on the first day of June, 1928.

TRYING IT OUT

The plasterers and lathers in Chicago have succeeded in inducing the employers to try out the five-day week plan. They say it is for the benefit of their fellow craftsmen who are unable at this season of the year to obtain steady employment. It is supposed to be an experiment and after a given time perhaps they will go back to the 5½-day week. The general contractors who are rushing to complete their jobs are complaining of the ill effect the five-day week has upon the morale of their men.

CLASS A OFFICE BUILDING

Charles W. McCall, 1404 Franklin street, Oakland, has been commissioned to prepare plans for a five story Class A annex to the Robert Dollar building, California street, San Francisco. The building will be designed to carry additional floors as needed and the offices will be arranged to suit the tenants. Mr. McCall is completing drawings for the new Studebaker garage and sales building in Oakland and bids on the work will be called for shortly.

GUARDING ARCHITECTS' INTEREST

From Chas. Kyson, architect of Los Angeles, come the following encouraging words:

"The articles which you are publishing to help this good work along will do a tremendous amount of good.

"More power to you.

"The Architect and Engineer is certainly demonstrating that it has the real interest of the architect at heart and is alive to the necessity of teaching the value of intelligent publicity."

The MONTH'S MAGAZINES
Edited by Irving K. Morrow - Architect

This Department is edited primarily, not as a review and criticism of other magazines, but to inform readers of The Architect and Engineer of the contents of those which they may not regularly see. The tables of contents as given are therefore not necessarily complete. Matter deemed negligible has been omitted. Items preceded by an asterisk (*) are to some degree conspicuous for interest or merit. Matter preceded by the sign (†) has appeared in The Architect and Engineer. The editors' comments are in small type, indented.

THE AMERICAN ARCHITECT

January 20, 1928

TEXT

Architectural Impressions of Southern California. By *Dwight James Baum* (with photographs).

Notes on Old Wrought Iron. By *Samuel Chamberlain* (with measured sketches by the author).

Prize Winning Design, Shakespeare Memorial Theater Competition, Elizabeth Scott, Architect.

The Influence of Various Styles on the Design of a Modern Apartment Hotel.

The Offices of Walker and Weeks, Architects, Cleveland, Ohio.

Sound Insulating Properties of Some Building Materials. By *Gunnar Heimburger.*

The Determination of the Bearing Power of Soils. By *Elwyn E. Seelye.*

PLATES

The Lombardy Apartment Hotel, New York. *Farrar & Watmough, Architects* (2 plates, plan and detail).

*A Fifth Avenue Shop, New York. *John Frederick Coman, Architect* (2 plates).

Pythian Temple, New York. *Thomas W. Lamb, Architect* (1 plate).

†*House of Mr. D. J. Witmer, Los Angeles, Calif. *Witmer & Watson, Architects* (2 photographs and plan).

Window Treatments—4 plates in supplement.

THE AMERICAN ARCHITECT

February 5, 1928

TEXT

Forty-Third Annual Exhibition, The Architectural League of New York. By *Ralph T. Walker.*

The Sixth, Seventh and Ninth Street Bridges, Pittsburgh, Pa. By *Stanley L. Roush.*

An Unusual Type of Roof Construction. By *Lancelot Sukert.*

Converting an Old Stable into a House. By *Brown Rolston.*

PLATES

Forty-Third Annual Exhibition, The Architectural League of New York (49 photographs and 8 plates).

New Clubhouse of the Architectural League of New York. *Ewing & Allen, Architects* (5 photographs, plans and article).

Rooms in Modern Style by Bamberger & Co. (4 photographs).

Seattle Honor Awards, Washington State Chapter, A. I. A. (12 photographs and article).

THE ARCHITECT

February, 1928

TEXT

Doctor William Thornton, Early American Amateur Architect. By *Rexford Newcomb.*

An Architectural Breakdown. By *George S. Chappell.*

Greater Safety in Building Construction. By *Robert D. Kahn.*

Death of Owner as Terminating Contract for Architect's Services. By *Leslie Childs.*

PLATES

House, Mr. J. Seward Johnson, New Brunswick, N. J. *Thomas Harlan Ellett, Architect* (11 plates and plans).

Moses Taylor Jr. Post, American Legion, Mount Kisco, N. Y. *John R. Larkin, Architect* (3 plates and plans).

†*House, Mr. Arthur K. Bourne, Pasadena, Calif. *Wallace Neff, Architect* (3 plates and plan).

Toll House, Bear Mountain Bridge, N. Y. *Tooker & Marsh, Architects* (2 plates and plans).

*Motor Mart Garage, Boston, Mass. *Ralph Harrington Doane, Architect; J. Frederick Kiokyn, Associate* (1 plate).

Wise Center Building, Cincinnati, Ohio. *Feehheimer & Ihorst, Architects* (2 plates and plans).

House, Mr. Joseph S. L. Wharton Jr., Meadowbrook, Pa. *De Armond, Ashmead & Bickley, Architects* (2 plates and plans).

THE ARCHITECTURAL FORUM

February, 1928

TEXT

Modern Architectural Decoration. By *Parker Morse Hooper.*

A Greek Revival Court House in Southern Indiana. By *Rexford Newcomb.*

*Guanajuato, the Most Mexican City. Text and sketches by *William P. Spratling.*

Mexico and the Ultra-Baroco. By *Dr. Atl.*

Salle Perrin, Musee des Arts Decoratifs, Paris. Text and measured drawings by *C. Hamilton Preston.*

Oil Burning for the Architect.—I. What the Oil Burner Is and What It Does. By *P. E. Fausler.*

The Deepest Foundations. By *Frank W. Skinner.*

Concealing the Radiator. By *Robinson V. Frost.*

Economy in Small House Construction. By *A. G. Hillberg.*

Heating and Ventilating Systems in Preliminary Design. By *Harold L. Alt and Price L. Rogers.*

Zoning, Traffic, and Building Types. By *Arthur C. Holden.*

The Architect and Building Finance. By *C. Stanley Taylor.*

Architects, Costs and Contractors. By *Morton C. Tuttle.*

The Allied Architects Association of Los Angeles. By *Edwin Bergstrom.*

The Allied Architects Association of Columbus, Ltd. By *W. A. Paine.*

Supervising the Sanitary Installation. By *A. R. McGonegal.*

A Well Planned Architectural Office.

PLATES

*Modern Architectural Decoration (7 plates).

*Graybar Building, New York. *Sloan & Robertson, Architects* (1 plate and plans).

*General Motors Building, New York. *Shreve & Lamb, Architects* (7 plates and plans).

House, Mr. Adolph C. Miller, Washington, D. C. *Pleasants Pennington, Architect* (8 plates, plans and details).

*The Elks' Memorial, Chicago. *Egerton Swartwout, Architect* (8 plates, photographs, plan, details and article).

*House, Mr. O. N. Gabriel, San Marino, Calif. *Roland E. Coate, Architect* (12 photographs, plans and article).

*House, Mr. Milton Baruch, Holmby Hills, Calif. *Gordon B. Kaufmann, Architect* (4 photographs, plans and article).

House, Mr. Max Fleischman, Montecito, Calif. *Johnson, Kaufmann & Coate, Architects* (3 photographs, plan and article).

THE ARCHITECTURAL RECORD

February, 1928

TEXT

*In the Cause of Architecture—II. What "Styles" Mean to the Architect. By *Frank Lloyd Wright.*

*A Ferro-Concrete Church. By *S. Woods Hill.*

The Art of Commercial Display—II. By *John Taylor Boyd Jr.*

Mural Decorations for the Ritz-Carlton Hotel in Boston.

PLATES

*Malabry Court, Chicago—A Remodeled Building. *Philip B. Maher, Architect* (photographs, plans and article).

*The Robert F. Holden House, Haverford, Pa. *Mellor, Meigs & Howe, Architects* (photographs, plan and article).

House, Mr. J. P. Glasby, Verona, N. J. *Penrose V. Stout, Architect* (3 plates and plans).

House, Mrs. Edward Roberts, Paoli, Pa. Remodeled by *Thomas Harlan Ellett, Architect* (4 plates).

House, Mr. Jefferson M. Hamilton, Tampa, Fla. *Franklin O. Adams, Architect, J. M. Hamilton, Associate* (2 plates and plans).

House, Mrs. L. C. Hunter, Fieldston, N. Y. *R. C. Hunter & Bro., Architects* (2 plates and plans).

House, Mrs. Ralph A. Brown, Bayside, N. Y. *Lewis Welsh, Architect* (2 plates and plans).

House, Mr. Prestom St. George Floyd, Cleveland, O. *Hugh D. Seaver, Architect* (1 plate and plans).

An Eighteenth Century German House in Pennsylvania (3 photographs, plans, details and article).

Memorial Chapel and Museum, Triaucourt, France. *Thomas Harlan Ellett, Architect* (2 drawings and plans).

*Over-Mantel by *Carlo Ciampaglia* (in color).

ARCHITECTURE

February, 1928

TEXT

Pueblos and Adobe in New Mexico. By *Elizabeth Palmer Millbank.*

Sound Insulation. By *V. L. Chrisler.*

Fanlights and Flagstones. By *William B. Spratling;* with sketches by the author.

Charcoal for Working Drawings.

Why I Use "Or Equal." By *Robert W. Blodget.*

The Detroit Institute of Arts—II. *Paul P. Cret and Borie, Zantzinger & Medary, Architects* (photographs, plan, sections, detail and article).

†*Villa Delizia, House of Mr. Garfield D. Murner, Hillsborough, Calif. *Willis Polk & Co., Architects* (11 photographs and plans).

Chimney Tops. A Portfolio of 51 Photographs.

PACIFIC COAST ARCHITECT

February, 1928

TEXT

Modern French Ironwork.

Responsibility for Underpinning of Buildings. By *Mark C. Cohn.*

PLATES

*Ebell Club, Los Angeles. *Hunt & Burns, Architects* (20 photographs, plan and article).

PENCIL POINTS

February, 1928

The Pastels of Harry V. K. Henderson. By *Rayne Adams.*

Viollet-le-Duc's "Rational Dictionary of French Architecture," Volume II. By *Thomas E. O'Donnell.*

Picturae et Pictores—Notes on Art, 40,000 B. C.-200 B. C. By *Hubert G. Ripley.*

An Original Method for Spacing Letters. By *Egon Weiss.*

Competition for the New Shakespeare Memorial Theater at Stratford-on-Avon.

Specify for a Specific Building. By *Frederick O. Lewis.*

Drawings in various media, including two in color.

THE WESTERN ARCHITECT

January, 1928

TEXT

The City Hall of Stockholm. By *Olaf Z. Cervin.*

What Price Architecture. By *F. W. Fitzpatrick.*

Color in Architecture—XIII. Greek Polychromy, I. By *Rexford Newcomb.*

The Passing Show. By *Arthur T. North.*

PLATES

Three Drawings and an Etching by *Charles L. Morgan.*

House, Mr. John Evans, Denver, Colo. *J. B. Benedict, Architect* (3 plates).

BANK OF ITALY TO BUILD

The Bank of Italy has secured possession of property extending along Montgomery street to Pine, San Francisco, and the buildings on the site will be razed to make room for a substantial addition to the old American Bank building at the corner of California and Montgomery, which structure the Bank of Italy purchased and has been occupying for some time. It is planned to start construction this summer.

DESIGNING APARTMENTS

New work in the office of Ray I. Irvine and L. Ebbets, Call building, San Francisco, includes a five story apartment building at Fell and Buchanan streets, San Francisco, for Fred Hechter; a two story apartment building on 11th avenue, north of Geary street, for Mrs. T. Offutt and a two story apartment building at 17th and Ord streets, San Francisco, for Mrs. Lipitch.

SOCIETY and CLUB MEETINGS

SOUTHERN CALIFORNIA CHAPTER

AT THE February 14th meeting of Southern California Chapter, S. S. Kwan, an architect from Tientsin, China, gave an interesting talk on "The Practice of Architecture in China." Among other things he stated that American architecture is becoming more and more prevalent in China while Chinese architecture appears to be growing in popularity in this country.

The following standing committees were announced by President Pierpont Davis:

Institute and Chapter Affairs—A. S. Nibecker Jr., chairman: Edwin Bergstrom, R. D. Johnson, W. T. Johnson, H. L. Pierce.

Public Service Committee—Edgar H. Cline, chairman; H. F. Withey, J. J. Backus, Chas. S. Lee, A. L. Acker, Sumner P. Hunt, J. C. Austin.

Sub-committees:

Legislation—S. Chas. Lee, chairman; W. F. Staunton Jr., Paul Duncan.

Uniform Code—Sumner P. Hunt, chairman; John P. Krempel, J. J. Backus.

Building Ordinances—Arthur L. Acker, chairman; Stiles O. Clements, Loyall F. Watson.

Welfare of the Profession—H. F. Withey, chairman; Sumner P. Hunt, Edwin Bergstrom, R. D. McPherson, Alfred W. Rea, Sumner M. Spaulding, Robert B. Stacy-Judd, S. Chas. Lee, John C. Austin.

Ethics and Practice—Alfred W. Rea, chairman; D. C. Allison, Sumner P. Hunt, H. M. Patterson, John B. Parkinson, David J. Witmer.

Affiliated Societies—Allied Arts—Wm. Richards, chairman; Stiles O. Clements, Chas. F. Plummer, C. E. Noerenberg, C. M. Winslow, Roy C. Mitchell.

Sub-committees:

Affiliated Societies—Chas. F. Plummer, chairman; Roy Kelley, Lloyd Rally.

Allied Arts—Carleton M. Winslow, chairman; Wm. M. Clarke, W. L. Woollett.

Construction Industries Committee—C. E. Noerenberg, chairman; Walter Webber, Edwin Bergstrom.

Membership Committee—Fitch H. Haskell, chairman; A. M. Edelman, Donald B. Parkinson, Gordon B. Kaufmann, J. E. Stanton.

Education and Publicity—Sumner M. Spaulding, chairman; Palmer Sabin, C. R. Johnson, W. L. Risley, H. C. Nickerson.

Sub-committees:

Education—W. L. Risley, chairman; Arthur Hutchason, Walter Davis, A. C. Weatherhead, A. C. Zimmerman.

Schools and Scholarships—C. R. Johnson, chairman; Kenneth Carpenter, D. R. Wilkinson, Edgar W. Maybury, Roland Coate.

Exhibitions—Palmer Sabin, chairman; George Adams, Paul O. Davis, Leland Fuller, Robert Murray.

Publicity and Publications—H. C. Nickerson, chairman; Chas. Kyson, H. O. Sexsmith, Roy Kelley, C. S. Wyant.

Permanent Records—Edwin Bergstrom, chairman; Edgar H. Cline, David J. Witmer.

Special committees:

Chapter Quarters—Wm. Richards, chairman; David J. Witmer, R. D. Johnson, Walter Webber.

Tree Committee—Chas. H. Cheney, chairman; Franz Herding, Eugene Weston Jr.

Competitions—Pierpont Davis, ex-officio chairman; J. E. Allison, David Witmer, Myron Hunt.

Standard Details—E. J. Borgmeyer, chairman; R. D. Johnson, H. F. Withey.

NORTHERN CALIFORNIA CHAPTER

The February meeting of the Northern California Chapter, A. I. A., was held at the Mark Hopkins hotel on Tuesday, the 28th, at 6:30 p. m. The Chapter invited to this meeting all the certificated architects of Northern California, for the purpose of discussing some definite method of obtaining uniform enforcement of the State Act to Regulate the Practice of Architecture, and to determine means of giving firm support to the State Board of Architecture. There were present at the dinner sixty-one members and guests, and at the meeting after dinner about ninety.

An interesting industrial film, showing the methods of applying lacquer in San Francisco buildings, was presented.

Regular business was postponed for the special business of the evening, the first of which was to hear from members of the State Board of Architecture the present status of the law and the problems facing the Board.

President Allen introduced John J. Donovan, President of the State Board, as the first speaker. Mr. Donovan gave a resume of the law, showing clearly to those present the meaning of the several parts of the law, and recent decisions and opinions regarding it.

A. J. Evers, Secretary of the State Board, N. D., then gave an explanation of the difficulties of uniform enforcement by means of the present enforcement machinery, and made an appeal to all certificated architects for support of the Board and acceptance of personal responsibility toward this vital matter. Mr. Evers discusses the subject at length elsewhere in this issue of The Architect and Engineer.

James S. Dean, a member of the State Board, N. D., and Director of the Northern California Chapter, A. I. A., gave a brief but forceful talk on the almost universal lack of thorough education as shown by candidates for certificates, and suggested that architects give broader training opportunities to men in their offices and encourage self-education.

Fred H. Meyer, also a member of the State Board, N. D., and Director of the Northern California Chapter, A. I. A., summarized the situation, stating clearly that some real action of support is necessary.

President Allen called for a discussion from the floor, which brought forth from E. L. Norberg a resolution, seconded by William I. Garren, as follows:

"As the result of a meeting of certificated architects in San Francisco, California, February 28, 1928,

"BE IT RESOLVED: That a temporary association be formed, consisting of certificated architects practicing in Northern and Central California, for the purpose of promoting the enforcement of the California Act to Regulate the Practice of Architecture; and that a committee be appointed by the President of the Northern California Chapter, American Institute of Architects, to arrange organization, policies and methods of such association."

Discussion of the motion was followed by numerous comments from those present, both on the proposed resolution and on the situation in general. Among those who spoke was Edgar Mathews, former member of the State Board. The motion was carried unanimously.

President Allen announced that he would soon appoint the Committee called for by the resolution and that all certificated architects of the Northern District would doubtless hear from the Committee at an early date, the idea being to form a state body to get back of the law and encourage its enforcement.

It was announced that the Southern California Chapter is fostering a similar movement.

MARCH CHAPTER MEETING

The next regular meeting of the Northern California Chapter, A. I. A., will be held at Hotel Mark Hopkins on March 27th, at 6:30 p. m.

The program will be a plan symposium. Salient points of planning will be given in short talks by experts and on subjects as follows: Andrew P. Hill, school plans; Chas. Peter Weeks, apartment house plans; Lewis P. Hobart, church plans; Jas. H. Mitchell, residence plans; T. L. Pflueger, office building plans.

WASHINGTON STATE CHAPTER

The 332nd regular meeting of Washington State Chapter was held at the College Club, Seattle, Thursday evening, February 2. After the usual dinner, the meeting was called to order at 7:30 and opened with a short address by President Ford. In illustrating the somewhat general tendency of novices to go up like a sky rocket and come down like a burnt stick, he told a story of a young Scotch theological student preaching his first sermon. The fledgling launched out with abandon, but just as he was going good, he caught sight of his old college professor in the congregation. This cooled his ardor very considerably, and he finished quite soberly. After the sermon, he asked his old instructor how he liked it. "Aye, laddie, had ye ainly gang up as ye came doon," was the reply. The president hoped the new administration would "gang up" with credit and likewise make a good landing.

The minutes of the previous meeting were read and approved with some corrections, and the treasurer read his report, which was accepted.

A letter from the Treasury Department regarding the employment of local architects on buildings for the Federal Government in Seattle was read and ordered placed on file. After some discussion it was suggested by President Ford that if any Chapter member felt that he had sufficient influence, he might go after the work and the Chapter might stand behind him, but he didn't think action by the Chapter as a whole could accomplish much. It was pointed out that the Chamber of Commerce maintains an agent in Washington, D. C., who might have some influence.

Mr. Loveless, reporting for the Advertising Committee, stated that several conferences had been held with Mr. Hooper, representing the Seattle Post-Intelligencer, and that the initial advertisement would appear within a few weeks with the first of a series of small houses prepared by the Committee appearing at the same time.

Mr. Thomas, at the request of the president, spoke of the work of the special committee that had been appointed to investigate the matter of a new King County jail.

Mr. Meyers, reporting for the Committee on Civic Design, said that a design for the water tower in Woodland Park had been tentatively accepted, but the committee was awaiting further designs before making definite recommendation. The report of the committee was accepted.

Mr. Thomas then gave an account of the work of the Architectural Department at the University.

LOS ANGELES ARCHITECTURAL CLUB

The February meeting of the Architectural Club of Los Angeles was held in the exhibit rooms of the Architects' building, Fifth and Figueroa streets, on the 21st, being one of the largest meetings in the history of the organization. President George P. Hales presided. Julian Garnsey acted as master of ceremonies.

Robert Noble Burnham, noted sculptor, addressed the members on the relation of sculpture and mural painting to architecture, and Francis Vreeland, artist, invited members to attend meetings of the California Art Club.

G. F. Nightingale of the Pacific States Electric Company assisted by R. F. Manahan of the city electrical department, gave a clever Oriental magic act.

President Hales announced that permanent club quarters would be established in the Architects' building and that an employment agency would be handled from the club offices.

The March meeting of the Club was held March 20 and an announcement was made that a special meeting will be held March 29, at which time members will be guests of the Celotex Company.

The annual masked ball by members of the club, the Architects League of Hollywood and the American Institute of Architects, was held in the Roosevelt Hotel, Hollywood, the night of February 3. Proceeds of the ball will go toward a scholarship at Fontainbleau. The committee in charge consisted of Walter Davis, chairman; Gus Hales, Henry Davis and Lee Rombotis. An honorary committee was composed of Don Parkinson, Frank Hargraves, David Allison, A. C. Martin, William Dodd, Charles Kyson, Sumner Spaulding, David Witmer, Harold Chambers and Fitz Haskell.

SAN FRANCISCO ARCHITECTURAL CLUB

At the business meeting held March 7th, six new members were voted into the San Francisco Architectural Club, which brings the membership up to 104. President Lawrence Keyser, in welcoming the new members, gave them a short address stating that the educational classes were the backbone of the club and urged the newcomers to take full advantage of them. As the club has one of the best and most modern architectural libraries the man registered in the Beaux Arts Course should have no difficulty in finding sources of inspiration for his work.

Mr. Keyser presented an illustrated vote of thanks to Mr. Treton of the Santa Cruz Portland Cement Company for the manner in which his company entertained the club members on their recent tour through the cement plant.

Harry Langley obtained a new stove for the atelier

and when asked how and where it was procured, stated it fell off a delivery wagon and he carried it home on his back (?).

Arthur Jansen was complimented on his new sign which hangs in front of the building and was given a standing vote of thanks by the club members.

A new innovation will be a charity box to be filled by the wisecrackers of the club at two bits a crack.

Dick McLaughlin has received his architect's license and expects a rush of business. He does not say which way the business will rush.

Speaking of architects' licenses, C. J. Sly expects very shortly to have his engineering class well primed for the ordeal. He is preparing them for any honest engineering question which the Board of Examiners may ask. His entire course has been arranged to enable his class to handle any average problem that may come up in an architect's office.

With the Architectural Detail Class, the Engineering Class and the Beaux Arts Institute Design Course, the club is educating its members so that they may hold their own wherever they may go.

Ralph Berger won the Pencil Points Christmas card contest and is preparing to acquire one of the traveling scholarships in the near future.

Ira Springer has announced that his picnic will be held at Marshall Park, Saratoga, California.

At the next business meeting Mr. DeMartini will serve a Swedish buffet lunch and those who have not tasted one have not begun to enjoy life.

ARCHITECTS' LEAGUE EXHIBITION

The third annual exhibit of the Architects' League of Hollywood, was held at the California Art Club, Mount Olive, March 14 to 28, inclusive. A jury of selection was composed of one member each of the Architects' League of Hollywood, Southern California Chapter, A. I. A., and the Los Angeles Architectural Club. The hanging committee consisted of V. P. McClurg, Nathan Coleman and Harold Miles. On the night of March 13 the architects gave a dinner and preview, prizes being awarded as follows: $25 for the best rendering in black and white; $25 for the best rendering in color; $25 for the best photograph of any architectural subject; $25 for the best general exhibit submitted by any architect.

WASHINGTON SOCIETY OF ARCHITECTS

The March meeting of the Washington State Society of Architects was held at the Hotel Gowman, Seattle, on March 1, at 6 p. m. The dinner was followed by an open meeting at which a number of guests were present.

RICHMOND CHURCH

Plans are being prepared by Messrs. Blaine and Olson of Oakland for a Spanish type church for the First Presbyterian Society at Richmond. The structure will have a seating capacity of 700 and will cost close to $100,000. The same architects are preparing sketches for a Spanish type residence at Carmel to cost $14,000.

"THROUGH THE BACK DOOR"

(The Charette)

We went to a building committee meeting a few days ago where there were 27 architects, all panting for the job like a pack of hunting dogs just before the kill.

One of the gentlemen arrived in a shiny car with a black chauffeur, no doubt to impress the committee with his importance, but he looked entirely too prosperous to be a mere architect.

Most of the committee were driving dilapidated tin cabriolets, and they gave the job to a fellow who arrived in town in the smoking car, who had a dent in his cast-iron hat, and who very evidently had forgotten to provide himself with any means of counteracting the effect of gravity on his socks.—Bulletin, Illinois Society of Architects.

MORE PLEASANTRIES

Editor The Architect and Engineer,
San Francisco.

Permit me to congratulate you on the general appearance and high quality of your February issue which I have just received. The art cover is far more substantial and not so likely to damage at the binding edge in the mails, the number being in perfect condition when delivered. The cover of the January number, while very good, was badly broken at both binding corners. The Architectural Record has adopted a cover of similar quality of paper and, with the protection to its binding edge of a heavy creased cover strip, its numbers, like yours, are now received without damage.

I have this month moved my office to the United States National Bank building, San Diego, as noted on the address filing card. This filing card, although a professional innovation and therefore subject to criticism, is proving a very practical medium. Its form is not copyrighted and may be used by any who so wish.

Very cordially, CURTIS TOBEY.

1933 WORLD'S FAIR AT CHICAGO

Chicago's second World's Fair is booked for 1933. Already the Illinois Society of Architects has volunteered its services and an appreciative reply has been made by President C. Rufus Dawes of the Fair Committee.

TO DESIGN ATHLETIC CLUB HOME

John Graham of Seattle, has been commissioned as architect for the Lakeshore Athletic Club's proposed home on the fourteen acres of ground owned by the club facing Lake Washington. The building will cost $750,000.

SEATTLE SCHOOL BUILDINGS

F. A. Naramore, architect for Seattle schools, has completed plans for the West Seattle junior high school to be erected at West Spokane, West Hines, 45th to 47th avenues, southwest, at an estimated cost of $520,000.

DISSOLVE PARTNERSHIP

Stephen, Stephen & Brust, architects of Seattle, have dissolved partnership. Fred B. Stephen retains his offices in the Thompson building, while W. G. Brust has opened new offices in the Republic building.

HISTORICAL DOOR

The historical door for the main entrance of the new Los Angeles city hall, originally proposed by the late Arthur B. Benton, architect and art commissioner, will soon become a reality. There are six panels, each depicting an important event in the city's history. The titles of these panels are: (1) Discovery of Los Angeles, 1770; (2) Founding of Los Angeles, 1781; (3) American Occupation, 1847; (4) First Public School, 1853; (5) Completion of Los Angeles Breakwater, 1913; and (6) Completion of Los Angeles Aqueduct, 1913.

The titles of the panels were suggested by Mr. Benton, but the subject matter in the panel models, and the modeling, is the original work of Henry Lion, sculptor, who has devoted much time and study to picturing these events, it is said. Credit is also due the city hall architects, Messrs. Austin, Martin and Parkinson, and to their representative, George P. Hales, for co-operation and encouragement in this work.

EXCHANGES DISCUSS CODE

About 100 representatives of exchanges in various parts of the state attended the meeting of the State Builders' Exchange at Fresno, January 14. Sessions were held morning and afternoon and the meeting closed with a banquet in the evening. The next meeting will be held at Stockton in April, and the fall meeting will be held at Santa Barbara in September.

The uniform building code prepared by the Pacific Coast Building Officials' Conference was discussed. It was brought out that Los Angeles and San Francisco are proceeding to draft their own codes, and it was the consensus of opinion that as building regulations must fit local conditions a standard code, rather than a uniform code, should be set up for guidance of municipalities.

HOLLYWOOD A MASS OF CURVES

Nunnally Johnson, reporter for the New York Evening Post, sends impressions from architectural Hollywood to his paper as follows:

"When the builders got to work on Hollywood's main thoroughfare, Hollywood boulevard, they just said to themselves, 'Well, by craps, we'll learn 'em!' The architects then went out in the back yards and broke all of their straight edge rules, their L squares and T squares over their knees. They knew they wouldn't need them. All they'd need were their scroll rules. For the first instruction the builders gave the architects was that there wasn't any art in a straight line.

"There's no way of telling now in Hollywood. There aren't any more straight lines on Hollywood boulevard than there are in an Italian wedding cake. And, too, there are other vague resemblances between the two forms of endeavor. But, all things considered, the two are not identical, the Italian wedding cake's stern simplicity and severe, almost harsh, structure having been surpassed in giddiness by the local Christopher Wrens."

BUILDING FOR BUNTING IRON WORKS

The Bunting Iron Works, manufacturers of oil burners, etc., have awarded a contract to Lawton & Vezey of Oakland for their new building in Berkeley from plans by B. G. McDougall of San Francisco. The structure will be one story, Class A, and considerably larger than the company's former plant, the increased size being necessary to take care of the growing business. Lawton & Vezey have also been awarded a contract for the erection of a bank building and department store at Corcoran, Kings County, from plans by F. Eugene Barton.

BUILDING A STEEL HOUSE

Walter Bates, president of a steel company of Gary, Indiana, is building an all-steel home for himself. The house will be proof against fire, tornado and earthquake. The owner forecasts that the steel home will come into general use just as steel cars on trains and all-steel bodies on automobiles have supplanted wooden coaches and wooden automobile bodies. The new house will have eight rooms with a foundation of drawn steel and sills, girders, joists, braces, rafters, doors and window frames of the same material.

POST OFFICE BUILDING

Indications point to the early construction of a new Post Office building in the San Francisco Civic Center. A bill has passed the House and Senate appropriating $3,250,000 for the new federal structure. The site to be donated to the government by the city of San Francisco includes the block bounded by Fulton, Leavenworth, McAllister and Hyde streets.

SHINGLE ORDINANCES

With the passage of the shingle ban ordinance in San Francisco, the East Bay cities are now considering similar legislation. In Berkeley fire-preventionists, supported by a number of citizens and officials, are preparing a new ordinance which will be presented to the City Council in the near future, according to report.

OAKLAND STOCK BUILDING

A two story stock and bond office building for William Cavalier & Company has been designed by Hugh White, with the engineering plans prepared by T. Ronneberg, Crocker building, San Francisco. The building will be erected on 14th street, west of Franklin. It will cost $50,000.

OAKLAND THEATER

Plans are being completed by Weeks and Day of San Francisco for a theater to be built on 17th street between San Pablo and Telegraph avenue, Oakland, and which will be leased to Henry Duffy of the Alcazar Theater, San Francisco. Construction has started.

UNIVERSITY SCIENCE BUILDING

Plans are being completed by Messrs. John and Donald B. Parkinson, Title Insurance building, Los Angeles, for a four story Class A science building to be erected on the campus of the University of Southern California. The cost is estimated at $300,000.

Estimator's Guide

Giving Cost of Building Materials, Wage Scale, Etc.

Amounts quoted are figuring prices and are made up from average quotations furnished by material houses to three leading contracting firms of San Francisco.

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

The wage scale is that in effect January 1, 1928, for a period of one year. Overtime in wage scale should be credited with time and a half, Sunday and holidays double.

Bond—1½% amount of contract.

Brickwork—
Common, $33 to $35 per 1000 laid.
Face, $100 per 1000 laid.
Brick Steps, using pressed brick, $1.10 lin. ft.
Brick Walls, using pressed brick on edge, 68c sq. ft. (Foundations extra.)
Brick Veneer on frame buildings, 70c sq. ft.
Enamel, $120.00 per 1000 f.o.b. cars.
Common, f.o.b. cars, $13.50, plus cartage.
Face, f.o.b. cars, $48.00 per 1000, carload lots.

HOLLOW TILE PIREPROOFING (f. o. b. cars in carload lots).

3x12x12 in.	$ 96.00 per M
4x12x12 in.	108.00 per M
6x12x12 in.	156.00 per M
8x12x12 in.	240.00 per M

Rebate 10% cash 10 days.

HOLLOW BUILDING TILE (f. o. b. cars in carload lots).

8x12x5½	$100.00
6x12x5½	74.00

Hod carriers, $7.00 per day.
Bricklayers, $11.00 per day.

Composition Floors — 18c to 50c per sq. ft. In large quantities, 18c per sq. ft. laid.
Rubber Tile—70c per sq. ft.

Terazzo Floors—60c per sq. ft.
Terazzo Steps—$1.50 per lin. ft.
Mosaic Floors—80c per sq. ft.

Concrete Work (material at San Francisco bunkers) — Quotations below 2000 lbs. to the ton.

No. 3 rock, at bunkers	$1.30 per ton
No. 4 rock, at bunkers	1.30 per ton
Niles pea gravel, at bnkrs.	2.70 per ton
Washed gravel, at bnkrs.	1.40 per ton
Niles top gravel, at bnkrs.	1.50 per ton
City gravel, at bunkers	1.30 per ton
River sand, at bunkers	1.15 per ton
Delivered bank sand	1.00 cu. yd.

SAND
Del Monte, $1.75 to $3.00 per ton.
Fan Shell Beach (car lots, f.o.b. Lake Majella), $2.75 to $4.00 per ton.
Cement, $2.51 per bbl. in paper sks.
Cement (f.o.b. Job, S.F.), $2.71 per bbl.
Cement (f.o.b. Job, Oak.), $2.71 per bbl.
Rebate of 10 cents bbl. Cash in 15 days.
Atlas "White" .....$ 8.75 per bbl.
Forms, Labors average 25.00 per M
Average cost of concrete in place, exclusive of forms, 30c per cu. ft.
4-inch concrete basement floor.....13c to 14c per sq. ft.
4½-inch concrete basement floor.....14c to 15c per sq. ft.
2-inch rat-proofing....6½c per sq. ft.
Concrete Steps.....$1.26 per lin. ft.
Wage—

Concrete workers	$5.50 per day
Cement finishers	9.00 per day
Laborers	5.00 per day

Dampproofing—
Two-coat work, 20c per yard.
Membrane waterproofing—4 layers of P.B. saturated felt, $4.50 per square.
Hot coating work, $2.00 per square.
Wage—Roofers, $8.00 per day.

Electric Wiring—$3.00 to $9.00 per outlet for conduit work (including switches).
Knob and tube average $2.25 to $5.00 per outlet, including switches.
Wage—Electricians, $9.00 per day; fixture hangers, $8.00 per day.

Elevators—
Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing an automatic elevator in four-story building, $2600; direct automatic, about $2500.

Excavation—
Sand, 60 cents; clay or shale, $1.25 per yard.
Teams, $10.00 per day.
Trucks, $21 to $27.50 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

Fire Escapes—
Ten-foot balcony, with stairs, $65.00 per balcony.

Glass (consult with manufacturers)—
Double strength window glass, 15c per square foot.
Quartz Lite, 50c per square foot.
Plate, 80c per square foot.
Art, $1.00 up per square foot.
Wire (for skylights), 25c per square foot.
Obscure glass, 25c per square foot.
Note—Add extra for setting.
Wage—Glaziers, $8.00 per day.

Heating—
Average, $1.70 per sq. ft. of radiation, according to conditions.
Wage—Steamfitters, $9.50 per day.

Iron — Cost of ornamental iron, cast iron, etc., depends on designs.
Wage — Iron workers, bridge and structural, $11.00 per day.
Architectural iron workers, $9.00 per day.

Lumber (prices delivered to bldg. site)
Common, $24.00 per M (average).
Common O.P. select, average, $31.00 per M.

1 x 6 No. 3—Form lumber	$19.00 per M
1 x 4 No. 1 flooring	50.00 per M
1 x 4 No. 2 flooring	49.00 per M
1 x 4 No. 3 flooring	35.00 per M
1 x 6 No. 2 and better flooring	45.00 per M
1¼ x 4 and 6 No. 2 flooring	53.00 per M

Slash grain—

1 x 4 No. 2 flooring	38.00 per M
1 x 4 No. 3 flooring	36.00 per M
No. 1 common run to T. & G.	30.00 per M
Lath	4.25 per M

Shingles (add cartage to prices quoted)—

Redwood, No. 1	$ .90 per bdle.
Redwood, No. 2	.75 per bdle.
Red Cedar	.90c per bdle.

Hardwood Flooring (delivered to building)—

¹³⁄₁₆x3¼" T & G Maple	$135.00 M ft.
1⅛x2¼" T & G Maple	145.50 M ft.
⅞x3½ sq. edge Maple	132.50 M ft.

	¹³⁄₁₆x2¼" T&G	⅝x2" T&G	⅝x2" Sq. Ed
Clr. Qtd. Oak	$220.00 M	$160.00 M	$178 M
Sel. Qtd. Oak	150.00 M	122.00 M	131 M
Clr. Pla. Oak	155.00 M	110.00 M	113 M
Sel. Pla. Oak	132.00 M	79.00 M	97 M
Clear Maple	147.00 M	101.00 M	
Laying & Finishing	16c ft.	15c ft.	13c ft.

Wage—Floor layers, $9.00 per day.

Building Paper—

1 ply per 1000 ft. roll	$4.20
2 ply per 1000 ft. roll	6.30
3 ply per 1000 ft. roll	9.60
Sash cord com. No. 7	$ 1.05 per 100 ft.
Sash cord com. No. 8	1.20 per 100 ft.
Sash cord spot No. 7	1.75 per 100 ft.
Sash cord spot No. 8	1.10 per 100 ft.
Sash weights cast iron	60.00 ton

Nails, $3.25 base.
Belgian nails, $3.00 base.

Millwork—
O. P., $85 per 1000. R. W., $110 per 1000.
Double hung box window frames, average, with trim, $7.00 and up, each.
Doors, including trim (single panel), $7.50 and up, each.
Doors, including trim (five panel), $6.50 each.
Screen doors, $3.50 each.
Patent screen windows, 30c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $6 each.

Dining room cases, $7.50 per lineal foot.
Labor — Rough carpentry, warehouse heavy framing (average), $12 per M.
For smaller work, average, $25 to $32 per 1000.
Wage—Carpenters, $9.00 per day.
Laborers—$5.50 per day.

Marble—(Not set), add 40c to 60c per ft. for settling.

Alaska	$1.25 sq. ft.
Columbia	1.25 sq. ft.
Pink Lepanto	1.40 sq. ft.
Italian	1.65 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.

NOTE—Above quotations are for ⅞ inch wainscot enlarged slabs f.o.b. factory. Prices on all other classes of work should be obtained from the manufacturers.

Floor Tile — Set on any of above except Verde Antique.....$1.10 sq. ft.

Italian	1.50 sq. ft.
Tennessee	1.50 sq. ft.
Verde Antique	2.50 sq. ft.
Hauteville	2.25 sq. ft.
French Grey	1.40 sq. ft.

Wages — Marble setters, $9.50 per day; helpers, $6.50 per day; marble polishers and finishers, $7.00 per day.

Painting—

Two-coat work	30c per yard
Three-coat work	40c per yard
Whitewashing	4c per yard
Cold Water Painting	8c per yard

Turpentine, 88c per gal. in cans and 73c per gal. in drums.
Raw Linseed Oil.....89c gal. in bbls.
Boiled Linseed Oil ....92c gal. in bbls.

Carter or Dutch Boy White Lead in Oil (in steel kegs)

	Per Lb.
1 ton lots, 100 lbs. net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Dutch Boy Dry Red Lead and Litharge (in steel kegs)

1 ton lots, 100 lb. kegs net weight	11¾c
500 lb. and less than 1 ton lots	12c
Less than 500 lb. lots	12½c

Red Lead in Oil (in steel kegs)

1 ton lots, 100 lbs. net weight	13¼c
500 lb. and less than 1 ton lots	13½c
Less than 500 lb. lots	14c

Wage—Painters, $9.00 per day.
Note—Accessibility and conditions cause wide variance of costs.

Patent Chimneys—

6-inch	$1.00 lineal foot
8-inch	1.50 lineal foot
10-inch	1.85 lineal foot
12-inch	2.10 lineal foot

Pipe Casings — 14″ long (average), $5.00 each.

Plastering—Interior—

1 coat, brown mortar only, wood lath	$0.40 yd.
2 coats, lime mortar hard finish, wood lath	.52 yd.
2 coats, hard wall plaster, wood lath	.55 yd.
3 coats, metal lath and plaster	1.05 yd.
Keene cement on metal lath	1.20 yd.
Ceilings with ¾ hot roll channels metal lath	.75 yd.
Ceilings with ¾ hot roll channels metal lath plastered	1.55 yd.
Single partition ¾ channel lath 1 side	.70 yd.
Single partition ¾ channel lath 2 sides 2 inches thick	2.50 yd.
4-inch double partition ¾ channel lath 2 sides	1.40 yd.
4-inch double partition ¾ channel lath 2 sides plastered	2.80 yd.

Plastering—Exterior—

2 coats cement finish, brick or concrete wall	1.03 yd.
2 coats Atlas cement, brick or concrete wall	1.28 yd.
3 coats cement finish No. 18 gauge wire mesh	1.80 yd.
3 coats Atlas finish No. 18 gauge wire mesh	2.08 yd.

Wood lath, $4.25 per 1000.

2.5 lb. metal lath (dipped)	.20 yd.
2.5 lb. metal lath (galvanized)	.24 yd.
3.4 lb. metal lath (dipped)	.26 yd.
3.4 lb. metal lath (galvanized)	.30 yd.

¾-inch hot roll channels, $76 per ton.
Hardwall plaster, $15.40 ton; $12.95 in paper sacks (rebate 15c sack).
Finish plaster, $16.40 ton; in paper sacks, $13.85 (rebate 10c sack).
Dealer's commission, $1.00 off above quotations.
Hydrate Lime, $19.50 ton.
Lime, f.o.b. warehouse, $2.25 bbl.; cars, $2.15.
Lime, bulk (ton 2000 lbs.), $16.00 ton.
Wall Board 5 ply, $43.00 per M.
Wages—Plasterers, $11 to $12 per day.
Wages—Lathers, $8.50 to $9 per day.
Wages—Hodcarriers, $7.50 to $8 per day.

Composition Stucco—$1.60 to $2.00 per sq. yard (applied).

Plumbing—
From $58.00 per fixture up, according to grade, quantity and runs.
Wage—Plumbers, $9.50 per day.

Roofing—
Five-ply tar and gravel, $5.25 per square for 30 squares or over.
Less than 30 squares, $5.50 per sq.
Tile, $26.00 to $40.00 per square.
Redwood Shingles, $11.00 per square in place.
Cedar Shingles, $10.50 sq. in place.
Pabco, 10-yr. roof, $8.50 per sq.
Pabco, 20 year, roof, $11.50 per sq.
Recoat, with Gravel, $3.00 per sq.
Wage—Roofers, $8.00 per day.

Sheet Metal—
Windows—Metal, $1.85 a sq. foot.
Fire doors (average), including hardware, $2.15 per sq. foot.

Skylights—
Copper, $1.25 sq. ft. (not glazed).
Galvanized iron, 30c sq. ft. (not glazed).
Wage—Sheet metal workers, $9.00 per day.

Stone—
Granite, average, $6.00 sq. ft. in place.
Sandstone, average Blue, $3.50; Boise, $2.60 sq. ft. in place.
Indiana Limestone, $2.60 per sq. ft. in place.
Wage—Stone cutters, $8.50 per day. Stone setters, $9.00 per day.

Store Fronts—
Copper sash bars for store fronts, corner, center and around sides, will average 70c per lineal foot.
Note—Consult with agents.

Steel Structural—$92.50 per ton (erected) This quotation is an average for comparatively small quantities.
Light truss work higher; plain beam and column work in large quantities, less.
Cost of steel for average building (erected), $90 per ton.

Reinforcing—
Base price for car load lots, $2.80 per 100 lbs., f.o.b. cars.
Average cost to install, $23 per ton.
Wage—Housesmiths, $9.00 per day.

Steel Sash—
All makes, from S. F. stock, 20c to 35c per square foot.
All makes, plant shipment, 22c to 35c per square foot.
(Includes mullions and hardware.)

Tile—White glazed, 80c per foot, laid.
White floor, 80c per foot, laid.
Colored floor tile, $1.00 per ft., laid.
Promenade tile, 80c per sq. ft., laid.
Wage—Tilesetters, $10.00 per day.

BOOK REVIEWS

By Edgar N Kierulff

ARCHITECTURAL DETAILS, Spain and the Mediterranean, by Richard S. Requa, A. I. A. Published by Monolith Portland Cement Company of Los Angeles, California. Price $20.00.

There has been published recently a volume called "The Golden Book." "Architectural Details" by Mr. Requa might equally bear the same title in respect to architecture for it is distinctive in arrangement and the one hundred and forty-four 11x14 inch plates are, for sheer beauty, the last word.

The plates are classified and embrace the following titles: Buildings—Country; Buildings—City Type; Doorways; Grilles; Window Grilles; Shutters; Roofs; Gates; Balconies; Gardens; Courts and Patios and Miscellaneous Details. Mr. Requa has made a name for himself as a photographer and his book shows the results of painstaking and exacting study with an eye to every detail in camera craft.

The Monolith Portland Cement Company should have an equal share of praise in putting out such a volume —a contribution to architecture. A limited edition of five hundred copies is available by arrangement with Jansen, the publisher, of Cleveland, Ohio.

* * *

NOTES

A de luxe edition of the 1928 Los Angeles Annual Builders' Guide has just been published by the Inter-State Educational Association, Story building, Los Angeles. This useful handbook is quite generally referred to by architects, contractors and and engineers.

* * *

The American Institute of Steel Construction has issued their new and complete Handbook of Steel Construction; first edition, 1927 (December). The book may be obtained from the executive office, 285 Madison avenue, New York City, N. Y. Price $1.50.

* * *

There has just been published by the Stanford University Press a very interesting book by Stephen Child of San Francisco, entitled "Landscape Architecture, A Series of Letters," in which the author amplifies the subject more fully, particularly as to the types of problems of landscape architecture. The publication is itself a beautiful example of the bookmaker's art.

PROPOSED VEHICULAR BRIDGE

Plans for the construction of a 6½-mile $18,000,000 vehicular bridge spanning San Francisco Bay from Albany in Alameda county to Tiburon in Marin county, have been filed with the Alameda County Board of Supervisors by T. A. Tomasini, bay capitalist.

The bridge proposed is to have a clearance above high tide of 150 feet for practically its entire length of six and a half miles. Two large spans, one 1000 feet and one 800 feet in length, will leave the shipping channels of the bay clear for travel.

TAY COMPANY DISPLAY ROOM

The George H. Tay Company, San Francisco, has installed three model bathrooms in the second floor showroom of its building at 165 Eighth street. Each bathroom is equipped with a different grouping of fixtures, and is complete with trimmings and accessories to show home builders and architects the latest design in modern plumbing.

The bathroom shown in the September issue of the Architect and Engineer featured the new T/N one-piece water closet, represented in Northern California by Tay Company. This fixture has proven popular with home and apartment builders.

AIDS TO BUILDING INDUSTRY

During the year 1927 the National Steel Fabric Company of Pittsburgh, Pa., made three valuable contributions to the building industry: Steeltex for floors, Steeltex for plaster and Steeltex for stucco.

In their development the company has adopted, in the construction of these products, the same principle of reinforcing that has long been successfully used in heavy concrete construction—highways, bridges, dams, buildings, etc., as typified by National reinforcing—an electrically welded cold drawn wire mesh.

"RHODODENDRON" APARTMENTS

John Hudson of Seattle, Wash., is architect for the ten-story apartment building being erected at the northwest corner of Terry avenue and Spring street, Seattle. Rhododendron, the state flower, has been chosen as the name of the apartments, the flower design being worked into the plaques at the entrance, and in an inner court there is to be a rhododendron garden. The building will cost $300,000.

A STUDY IN STILL LIFE

A contractor, arriving at one of his jobs, observed an old gentleman looking at the operations. On questioning him for the reason of his interest, the contractor was asked, "Why do they put those statues at the top of the building instead of lower down where they can be seen better?"

"Statues?" replied the contractor, "why those are bricklayers."—California Constructor.

ARCHITECT LOSES SUIT

Eugene Seadler, Sacramento architect, lost his suit at Woodland, California, against E. J. Stevenson, automobile dealer, for $750, the alleged balance due on plans and specifications for the construction in Woodland of a new garage. Superior Judge W. A. Anderson entered judgment in favor of Stevenson, declaring Seadler had not presented sufficient evidence to support his claim.

THIRTY-TWO STORY BUILDING

Sketches have been prepared by Henry Bittmann, architect of Seattle for a thirty-two story building of the pyramid type, planned to cover an area 360x240 feet, in Seattle. If built it would be the largest building in the west, covering a full city block from Third to Fourth avenues, and from Virginia to Stewart streets.

PROTECTIVE AGENT FOR FLOORS

Ever since fine concrete, tile, marble and terrazzo floors have been laid, there has been the problem of protecting them from the building tradesmen who pass over them while building operations are in progress. The floor contractor may do the finest kind of job only to have the finished floor permanently marred or stained in some cases or be compelled later to clean and remove stains from plaster, paint, oil, tobacco juice, etc.

Sawdust, sand, canvas and other protective means have been employed, usually with only partial success. They have continued in use only because nothing better at a reasonable cost was available.

The problem of protecting fine colored concrete floors has been particularly acute because paint, plaster and other stains may permanently ruin the appearance of a colored floor. Realizing this, the Master Builders Company of Cleveland, makers of Colormix floors, set their laboratory to work to master this problem. After several years of experimenting and testing this has finally been done and this new protective coating, known as Stainproof, is now available and has been successfully used during the last few months.

JAPAN WANTS AMERICAN PRODUCTS

The following interesting letter was recently received by Manager Ray Cox of the Built-in Fixture Company, Berkeley:

Tokyo, October 11, 1927.

Gentlemen:

Being very desirous of getting the products which are now under the course of manufacturing in your company, we beg to request you to be favored us with your valued detailed catalogs.

In this age of keen architectural progress, nothing can be compared with your products in the important degree of developing the civilization of that world in a country, and so, naturally, they enable people to elevate their daily life. We will be deeply impressed your kindness in our mind, if you have such goodwill as to favor us with your catalogs of many kinds which enable us freely to select and order your products.

In case your catalogs cannot be sent us in no charge, we will without fail forward you the cheque (covering all charges and costs of the catalogs) of a bank whose branches exist in your country, after receiving the catalogs and bill. Thanking in anticipation very much for your favorable reply and that immediately, we are

Yours very faithfully,

TOKYO KOTETSUKAGU SEISAKUSHO,

KY/IT (Signed) K. Yamada.

OAKLAND STORE BUILDING

Leonard H. Ford, 1205 Harrison street, Oakland, has completed plans for a two-story Class C brick store and office building, to be erected at 15th and Harrison streets, Oakland, for the Coit Investment Company. The cost is estimated at $25,000.

GRANTED CERTIFICATES

At the last meeting of the State Board of Architecture, the following were granted certificates to practice architecture in California:

Reddick H. Bickel, Clift Hotel; Richard A. McLaughlin, 618-20th avenue; Benjamin Schreyer, 1211 Russ building, all of San Francisco.

FINE DISPLAY ROOM

Solon & Schemmel, manufacturers of "S. & S." floor and wall tile, with factory in San Jose, announce the removal of their San Francisco office and show room from the Universal exhibit in the Monadnock building, to Room 8 (Arcade) in the same building. With increased space they now are able to maintain a complete display of decorative wall and floor tile which is open to the inspection of architects, tile dealers and prospective builders. D. Gerald Barr is in charge of the San Francisco exhibit.

COASTEEL BUILDINGS

Michel & Pfeffer, San Francisco and Los Angeles, report closing a number of large contracts recently for their Coasteel standard steel buildings. The company has just completed a new unit to their factory at Harrison and Tenth streets, San Francisco, and their plant now covers more than two full blocks. The Italian-Swiss Colony has recently contracted for a Coasteel building, which type is adaptable not only for industrial purposes but for garages, warehouses, machine shops, pump houses, fire stations, laboratories, etc.

GROWING RAPIDLY

The Fireproof Material Division of the Milwaukee Corrugating Company is growing rapidly, due to the increasing demand for Milcor stay-rib and Netmesh metal lath, expansion corner bead, expansion casings and other Milcor firesafe sheet metal building products. This growth has caused the company to enlarge its production facilities and increase its sales force.

The recent addition of Julius A. Pfeiffer as director of sales of the Fireproof Material Division is only part of the program of expansion.

HIGH-FIRED FAIENCE TILES

Kraft Tile Company has published an elaborate brochure of standard file size, illustrating in colors its various grades and shapes of high-fired faience tiles. Many of the tiles possess rare beauty and according to the manufacturers are unequalled for durability. Craftiles are made at the company's factory at Niles, California. All architects should have a copy of this book for their files.

BRANCH BANK BUILDING

Plans have been completed and bids taken for a one story, Class A, branch bank building at Mission and Norton streets, San Francisco, for the Hibernia Savings & Loan Society. Arthur Brown Jr., is the architect.

RECREATIONAL HOME

Sketches are being prepared by William Lee Woollett, Architect's building, Los Angeles, for a $300,000 recreational home of brick construction for Clifford F. Reid, Inc.

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